

CHEMICAL INFORMATION EXCHANGE NETWORK



Participant's Manual
January 2003



Prepared for the cooperative
United Nations Environment Programme
and US Environmental Protection Agency
Chemical Information Exchange Network (CIEN) Project



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Access to the wealth of information on chemicals and pesticides on the Internet is critical to building capacity for the sound management of chemicals as called for in Chapter 19 of Agenda 21. The Intergovernmental Forum on Chemical Safety (IFCS) Priorities for Action Beyond 2000 calls for support of efforts to eliminate barriers to information exchange for the sound management of chemicals in order to enhance communication among national, sub-regional, regional and international stakeholders. It sets the goals that by 2005, at least five countries in each region, and by 2010, most countries should have fully operational arrangements in place for the exchange of information on hazardous chemicals.

To meet this challenge, the United Nations Environment Programme (UNEP) and the United States Environmental Protection Agency (US EPA) jointly launched the Chemical Information Exchange Network (CIEN) Project to strengthen capacity to access electronic sources of chemical information and to provide training on how to access this information on the Internet for chemical management officials and other appropriate stakeholders.

During the pilot phase that covered four countries in Africa (Côte d'Ivoire, Mali, Nigeria and Tanzania) the U.S. Agency for International Development joined the partnership. The pilot showed that an equally important component of this partnership is the commitment and involvement of national organizations in countries wishing to benefit from Internet access and chemicals management networking.

The project is now being expanded to other countries in Africa in the Economic Community of West African States (ECOWAS) and the Southern African Development Community (SADC). In addition, the project has been launched in Central America and Mexico in August of 2002.

In light of the most recent global agreement to reduce persistent organic pollutants, this project is especially useful in helping countries meet obligations of the Stockholm Convention on POPs and to promote regional cooperation by increasing information exchange and communication among key chemical management officials through Internet access and the use of electronic mail. Such access will also be important for implementation of other multi-lateral environmental agreements, such as the Rotterdam Convention on Prior Informed Consent (PIC) and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

This participant's training manual was developed for use in the Chemical Information Exchange Network (CIEN) Internet training workshops held in each country. It is meant as a guide for finding chemicals information on the Internet, and is a work in progress. As new web sites are developed and new technologies emerge, it will be updated and improved.

We hope you find this manual useful in your daily work. You are also encouraged to take the time to explore the exercises on your own and to reach out to your colleagues to share information and create a chemical information exchange network of your own.

Hardcopy and electronic versions of this document are available by request to UNEP or can be obtained on the Internet from UNEP Chemicals (<http://www.chem.unep.ch/irptc/default.htm>) or US EPA (www.epa.gov/international/toxics).

The work has been carried out with helpful input of many individuals from governments and non-governmental organizations. In particular, we would like to thank Ronald Macfarlane, and Cyrille-Lazare Siéwé, consultants to UNEP, Jude Andreasen, Bonaventure Akinlosotu, Angela Bandemehr and, Marianne Bailey of the US EPA. We would also like to thank Fatoumata Keita Ouane of UNEP Chemicals who coordinated the production of this guide; her expertise, and her advice made this document possible.

Sincerely,

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Unit 1 – Introduction

The Chemical Information Exchange Network Internet Training Workshop is part of an effort to increase the capacity of developing countries in the sound management of chemicals. The training is divided into eighteen units that can be grouped into those that provide basic skills on the Internet and the other that focus on finding information on chemicals and their sound management. Training sessions can be adapted to accommodate the level of trainee experience by selecting appropriate units. For example, the units on the use of the Windows environment and Internet browsers are optional when learners already have the prerequisite skills.

The objectives and the programme of the workshop are outlined below:

Objectives

The overall goals of the workshop are to:

- Provide an introduction to the Internet
- Provide basic searching skills
- Introduce important sites and databases that contain information on chemicals and their sound management
- Explore the opportunities for strengthening national and regional chemical management infrastructure through enhanced networking via electronic and other means.

Some specific learning outcomes of the workshop include:

1. Ability to create and use a list of bookmarks to key resources (search engines, directories, indices, sites) that

can help to more quickly and effectively find chemicals information on the Web

2. Knowledge and use of some key Internet searching "Tips and Tricks"
3. Knowledge of which information guides to use for which types of questions
4. Ability to effectively search the web sites of organizations that provide information on chemicals and their management
5. Use of chemical management directories and search engine(s) to find answers to typical chemical management questions encountered in the course of business
6. Identification and listing of resources for further training and guidance on conducting research via the web
7. Identification and listing of some valuable chemicals management information resources that are NOT freely available on the Internet
8. Practice searches on questions that the learners encounter in the course of their business and that they would like to be able to research using the Internet
9. Data quality – how can an Internet user be certain that information retrieved from the Internet is reliable?

In the pre-training questionnaire you were asked to submit questions or topics that are relevant to your work. The programme provides an opportunity to practice and to search information for these issues, questions or concerns. Although the manual does include some examples throughout and in the Search Safari, you are invited to use the time available to practice on topics and issues of particular importance to you.

Contents of the Workshop

Session	Objectives
Registration	
0. Opening	
1. Introduction	Outlines the objectives and expected outcomes of the workshop
2. Background	Provides the national/regional context of the training workshop
3. The UNEP/EPA Chemical Information Exchange Network	Introduction to the project, the partners involved and its objectives
4. Chemical Information: a tool for risk prevention and the sound management of chemicals	Provides an overview of the challenges to the sound management of chemicals in developing countries and the various international agreements and initiatives to improve capacity and access to information
5. Introduction to the Internet	Provides a short description of the internet, its nature, development, capacity and use. Specific concepts: <ul style="list-style-type: none"> • What is the Internet • World Wide Web • HTML • How did it start? • What is a browser? • Getting connected • Assessing the quality of information
6. Introduction to Windows (<i>Optional</i>)	Objectives: <ul style="list-style-type: none"> • Become familiar with the layout of the desktop • Become comfortable with the movement of the cursor • Learn to double click • Learn to use the left and right click • Learn about directories/folders and files • Learn how to start and exit from a programme • Learn how to start and log-off your computer

Session	Objectives
7. Introduction to the Browser	<p>Provides an overview of the basic functions of an internet browser software and practice these to get to a specific site and navigate from page to page</p> <p>Specific Objectives:</p> <ul style="list-style-type: none"> • Get familiar with the layout of the browser window • Learn the structure of an internet address (URL) • Access a site by entering an internet address in the address window • Recognise hyperlinks and navigate between pages using these links and the back / forward buttons • Learn how to create a favourite / bookmark • Open or download a document • Find on this page • Introduction to the Acrobat Reader
8. Introduction to Search Engines	<p>Provides an introduction to common search engines and the use of key words to search for information</p> <p>Key Concepts:</p> <ul style="list-style-type: none"> • Reasons to use search engines • Examples of search engines available on the web • Mirror sites, regional or national portals • Difference between directories and indexes • The limits of search engines • Awareness of search functions on a specific site • Use of keywords to find information on the web • Results using singular and plural terms • Results using different search engines (AltaVista, Google) • Search for an organisation • Search for information on a specific topic • Tool Kit for Expert Web Searcher • Meta search engines – Ixquick Query Server, Vivisimo

Session	Objectives
9. Introduction to E-mail	<p>Introduces web-based e-mail services and provides practice in sending and receiving messages:</p> <ul style="list-style-type: none"> • E-mail using a service provider • E-mail on a network • E-mail using a free web-based service • Create an account on a free web-based service (e.g. Yahoo! Mail) • Use this account for an exchange of messages among learners • Create a signature • Attach documents to your message • Open attachments in received messages • Delete messages • Save messages sent, save draft messages • Create folders • Use the address book • Accessing a POP account
10. Translation Tools on the Web	<p>Introduces translation engines available on the Internet, their use and limitations:</p> <ul style="list-style-type: none"> • Use the translate function on AltaVista, Google • Translate a web page • Translate specific text • Compare translations
11. Advanced Search	<p>Introduces more advance techniques for more accurate search results:</p> <ul style="list-style-type: none"> • Principles of searching • Refining your search strategy • Awareness of differences among search engines • Boolean logic and its use (and, or, not operators; truncation; searching a phrase) • Review "Advanced search" options on various search engines
12. Introduction to Major Organisations	<p>To provide an introduction to the sites of several organisations that provide information on chemicals and their management</p> <ul style="list-style-type: none"> • IOMC organisations – FAO, UNEP, ILO, UNITAR, WHO, OECD • US EPA
13. Specialised Directories	<p>Introduction to topical directories:</p> <ul style="list-style-type: none"> • Finder Seeker • Complete Planet, Invisible Web • Virtual Chemistry Centre • PMReG • ChemFinder

Session	Objectives
14. Additional Browser Functions	<ul style="list-style-type: none"> • File and Edit menu • Organise bookmarks • Customising the browser • Empty cache • Export your bookmarks
15. Specialised Databases	<p>To become familiar with databases that provide information on chemicals</p> <ul style="list-style-type: none"> • Database on Pesticides and the Environment • EXTOKNET • IN-CHEM • IRPTC Legal File • New Jersey Right-to-Know Hazardous Substance Fact Sheets • Scorecard: About the Chemicals • TOXNET (including HSDB, IRIS, Toxline) • Finding MSDSs on the Internet • Subscription based sources
16. Networking	<ul style="list-style-type: none"> • Networks – GINC, ISYS, EISI, INFOCAP • Finding a contact (e.g. US EPA, Government of Canada) • Case Studies
17. Search Safari	To provide an opportunity to practice finding information on topics of interest
18. Evaluation and Wrap-up	<ul style="list-style-type: none"> • Summary of learning outcomes • Written evaluation • Verbal feedback
Closing	Distribution of Certificates

Unit 2 – Background

The objective of this session is to provide background information on national activities related to chemical management and to some of the events that have occurred before the training.

Unit 3 – The Chemical Information Exchange Network

The Chemical Information Exchange Network Project (CIEN) is a response to the recommendations found in Chapter 19 of Agenda 21. It follows from Intergovernmental Forum on Chemical Safety (IFCS) Priorities of Action to eliminate barriers to information exchange and to enhance communication among national, regional, and international stakeholders.

The Internet is a tool for strengthening the capacities of countries to manage chemicals. It provides a gateway to valuable scientific, technical, economic and legal information in a cost-effective manner.

CIEN is a partnership of the United Nations Environment Programme (UNEP) and the U.S. Environmental Protection Agency (US EPA). It provides electronic equipment and Internet access to selected government agencies as well as training to chemical management officials and other appropriate stakeholders on the use of the Internet.

The major goals of the project include:

- To provide countries with basic information needed for the management of chemicals to facilitate national decision-making
- To facilitate the implementation of chemical-related treaties such as the Basel Convention (hazardous waste), the Rotterdam Convention (prior informed consent or PIC) and the Stockholm Convention (persistent organic pollutants or POPs).

This project has been supported by efforts of UNEP, US EPA and other partners or funders including, the Canadian International Development Agency (CIDA), the Swiss Federation, the US Agency for International Development (USAID), the US State Department, and the United Nations Institute for Training and Research (UNITAR).

CIEN is directed to developing countries that lack the capacity to access information. Its specific objectives include the following:

- To enhance the capabilities of developing countries to enhance and share information
- To create a framework for access and exchange of chemical information to support national, regional and international activities for the sound management of chemicals
- To assist appropriate government agencies to access the Internet
- To provide training to chemical managers and selected stakeholders to access chemical information on the Internet and to encourage the establishment of a national and/or regional network.

The above objectives are achieved through the following undertakings:

- National stakeholders identify needs for access and exchange of chemical information on the Internet
- UNEP and the US EPA strengthen the capability to access chemical information on the Internet
- UNEP, US EPA or other partners, as appropriate, provide training on the use of the Internet to access information on chemicals
- Countries establish a chemical information exchange network at the national and/or regional level.

The final outcome of the project includes the establishment of infrastructure and technical capabilities and staff training. As well, it is anticipated that countries will create a web site that includes contact address for national stakeholders and partners, information resources and sources of information on chemicals relevant to their country.

Funds made available to the participating countries through this project allow for key

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government agencies to obtain a computer and to gain access to the Internet. It also provides support for a meeting of stakeholders, an Internet training workshop, and some follow-up activities.

Africa was chosen as the first target region because it is the region with the greatest barrier to access to information. The pilot phase of the project was carried out in Côte d'Ivoire, Mali, Nigeria and Tanzania during 2000-2001. This was followed by full

implementation starting late in 2001. Funds received to date have allowed the project to be implemented the Economic Community of West African States (ECOWAS), the countries of the Southern African Development Community (SADC) and Central America including Mexico. Plans are underway to extend efforts to other African and Latin American countries. As funds become available the project will be extended to other regions.

Unit 4– Chemical Information

In 1992, the United Nations Conference on Environment and Development in Rio de Janeiro (UNCED) provided a framework for sustainable development. It recognised the need for sound information to assist in effective decision-making. It outlined some of the constraints of developing countries and the lack of information relevant to their situation.

Information is a needed component of sustainable development. UNCED identified the need to collect local information and to bridge the gap between the information rich and the information poor. This includes activities in the following areas:

- collection of data,
- management
- analysis
- synthesis – health and environmental assessment

There is also the need to improve methods for data evaluation and assessment, the adoption of sustainable development approaches and identification of environmental indicators.

Developing countries face challenges of environmental degradation and human health impacts due to air pollution, water pollution and soil contamination.

Chemicals result in human health impacts, such as:

- Poisonings
- Respiratory impacts
- Immune effects
- Neurological effects
- Reproductive effects
- Cancer

Sensitive sub-populations, such as pregnant mothers or children and sub-populations at higher risk due to their lifestyle or occupation also need to be considered.

There are various international agreements that have addressed chemicals and their adverse impacts on health in the environment, for example:

- Montreal Guidelines and Global Programme of Action
- Rotterdam Convention

- Stockholm Convention
- Basel Convention
- Chemical Weapons Convention
- Montreal Protocol
- London Dumping Convention, and
- ILO Convention 170.

Although not focused on chemicals, several regional conventions also incorporate pollution related concerns, for example:

- Algiers Convention
- Abidjan Convention
- Nairobi Convention, and
- Zambezi River System Action Plan.

Many conventions include an information exchange mechanism. The main focus of the Rotterdam or PIC Convention is information exchange on chemicals that are banned or severely restricted. This includes notification of control actions and PIC circulars to exchange this information.

The Stockholm or POPs Convention includes provisions for the elimination of production, use, import and export of 9 chemicals (Annex A), the control of production and use of DDT (Annex B), measures to reduce or eliminate releases from unintentional production (Annex C) and measures to reduce or eliminate releases from stockpiles and wastes. Measures are in place to assist developing countries to develop national implementation plans to better manage the 12 substances identified in the convention.

Information Needs

There is a wide array of information needs:

- Regulatory information
- Health and safety
- Toxicity data
- Environmental fate
- Pollution prevention and control

The many sources of information that exist include:

- Conventions
- International institutions
- Government agencies
- Academic and other institutions
- Commercial providers

There is a wide range of data sources, for example:

- UNEP
- CIS-ILO
- IPCS-Intox
- INCHEM
- ECDIN
- NIOSH
- CCOHS
- Toxnet
- Medlars

These can be accessed either through traditional methods, CD-ROM, on-line or more and more frequently through the Internet. The Internet provides easy access to a wide range of information:

- Conventions
- Publications of international organisations
- Government publications
- Databases
- Publications of other organisations such as industry, university, and NGOs

Information Exchange

The Internet provides a means for information exchange. This can be done through by e-mail, newsgroups, or involvement in specialised networks such as:

- the Global Information Network on Chemicals (GINC)
- ISYS phytosanitaire
- Environmental Information Systems on the Internet (EISI), or
- INFOCAP

To facilitate the sound management of chemicals, the Chemical Information Exchange Network (CIEN) Project focuses on two areas:

- Better access to the Internet to improve access to the information on chemical, and Information exchange, and
- Networking among national and regional institutions to: Coordinate development and implementation of national regulations;
 - Coordinate compliance and implementation of international environmental agreements, and to
 - Better develop and carry out National or Regional Implementation Plans.

Unit 5- Introduction to the Internet

What is the Internet?

- The Internet is a world-wide collection of tens of thousands of interlinked computers.
- The backbone of the Internet is made up of high capacity computer networks that then link to regional and local networks.
- Individuals or organisations can link to the local network directly or through a local Internet service provider (IPS).
- The computers on the network run software that use TCP/IP or Transmission Control Protocol/Internet Protocol to exchange data.
- The Internet itself does not contain information.
- The Internet is the transport vehicle for the information stored in files or documents on another computer. It can be compared to an international communications utility servicing computers.
- It is a slight misstatement to say a "document was found *on* the Internet."
- It would be more correct to say it was found *through* or *using* the Internet.
- The material was actually found in (or on) one of the computers linked to the Internet.
- Computers on the Internet allow you to use one or all of the following services:
 - Electronic mail (e-mail) to send and receive mail;
 - Access to discussion groups often called Listservs® after the software they operate under;
 - Telnet or remote login to use your computer to log onto another one and use it as if you were there;
 - FTP or File Transfer Protocol to rapidly retrieve large files intact from a

remote computer and view or save them on your computer;

- Gopher: An early, text-only method for accessing Internet documents, that has been almost entirely subsumed in the World Wide Web; you may still find gopher documents linked to web pages;
- The World Wide Web (WWW or "the Web"): The largest, fastest growing activity on the Internet.

Internet or World Wide Web?

- The term World Wide Web and Internet are often used inter-changeably.
- However, not all Internet servers are part of the World Wide Web. The WWW is the part of the Internet that is generally accessible.
- As long as your computer has the hardware and software to do these things, you can use the WWW to:
 - retrieve documents,
 - view images, animation, and video,
 - listen to sound files,
 - speak and hear voice, and
 - view programs that run on practically any software in the world.

HTML

- HTML (*HyperText Mark-up Language*) is the foundation on which the WWW functions;
- HTML and other programming imbedded within HTML is what allows links between pages or documents;
- This is done using what is known as Hypertext;
- Hypertext provides areas in a page or buttons or graphics on which you can click your mouse button and bring another document for you to view on your computer;
- In this way you can move from page to page or document to document on the WWW.

- This is known as surfing the web.

How do hypertext links work?

- Anything you find on the Web has a unique address or URL (uniform resource locator);
- This identifies what computer the thing is on, where it is within that computer, and its specific file name;
- When you click on a Hypertext link you send a request to retrieve the unique document on some computer in the world that is uniquely identified by that URL.

How did it all start?

- The U.S. Defense Advanced Research Projects Agency (ARPA) was looking for a means to create a communications network that was immune to military attack
- In the 1969, the U.S. government created ARPAnet, connecting four universities;
- This network had no controlling headquarters (a "distributed" network);
- Standard protocols (or rules) were adopted to facilitate the transfer of data between various computers;
- Researchers could use any the computers of any of the computers on the network;
- In 1972, the first e-mail program was created;
- Universities saw the success of the ARPAnet and signed up to use it.

From Military to Civilian

- The civilian and military portions of the network split into MILnet and ARPAnet;
- In 1980 the National Science Foundation (NSF) created the NSFnet;
- It linked regional networks, initially to handle computer communications between five supercomputer centres;
- In 1990, ARPAnet closed down, as most of the traffic had moved to the NSFnet;

- NSFnet became the major US backbone of what was now called the Internet;
- Major telecommunications firms also built their own backbone and regional networks;
- In 1996, NSFnet was sold to a consortium of private telecommunications companies;
- The backbone & regional networks that constitute the Internet in the US is now privately owned and operated;
- In other countries the backbone may be provided either by the government or the private sector.

Invention of Hypertext

- In 1989, Tim Berners-Lee of CERN proposed the underlying concept of the World Wide Web (WWW) – the hyperlink – text that linked one document to another;
- Browsers and servers were developed to help locate and transfer data;
- 1992 – CERN released the World Wide Web;
- In early 1993 the Web accounted for only 0.1% of all Internet traffic.

Graphical Interface

- In 1993, a graphical Web browser, Mosaic was developed in the U.S.;
- In addition to text it could handle a variety of images, enabling the creation of what we now know as Web pages;
- The use of the Internet (specifically the Web) exploded;
- Web traffic now constitutes the vast majority of all Internet traffic.

What is a Browser?

- A browser is a programme that allows you to retrieve and view documents on the WWW that are in html format and to access the Internet taking advantage of text formatting, hypertext links, images, sounds, motion, and other features.

- Netscape Navigator and Microsoft's Internet Explorer are the two best-known browsers.
- Browsers also rely on "plug-ins" to handle the fancier files you find on the Web.
- Plug-ins are small-programmes stored within a browser or elsewhere in your computer to support special types of files.

Getting Connected to the Internet

- To access the Internet you need a computer, a modem or other telecommunications link, and the appropriate software.
- Most individuals or organisations obtain access through a company known as an Internet Service Provider (ISP).
- You connect to the ISP computer through the local telecommunications network.
- The ISP then provides access to the wider network.

Data Quality

- There is no authority that evaluates all the data that is available on the Internet.
- You must therefore use your judgement on the quality of the information that you retrieve:
 - What is the original source of the information?
 - Is it authoritative?
 - Is it current?
 - What is the bias?

See the Annex for more details on assessing data quality on the web.

Viruses

- Viruses, worms and Trojan horses are human-made software programs.
- They usually spread through e-mail as attached files and some can cause severe damage.
- Simple steps to avoid getting infected include the use of an up-to-date anti-virus software, scanning e-mail attachments before opening them and scanning floppy disks before using them on your computer.
- Hoaxes are messages that warn you of a virus and ask you to advise all your contacts. Do not participate in spreading hoaxes by forwarding such warnings.
- The Annex provides more detail on viruses and ways to help prevent problems caused by their spread.

Unit 6 - Introduction to Windows

This Unit has been included for people who are not familiar with using a personal computer (PC) and a Windows environment. It is not a comprehensive overview of the Windows environment, but should provide

sufficient knowledge for someone who wants to use the Internet.

Note that the illustrations are a guide. What you will see on your computer may vary a little.

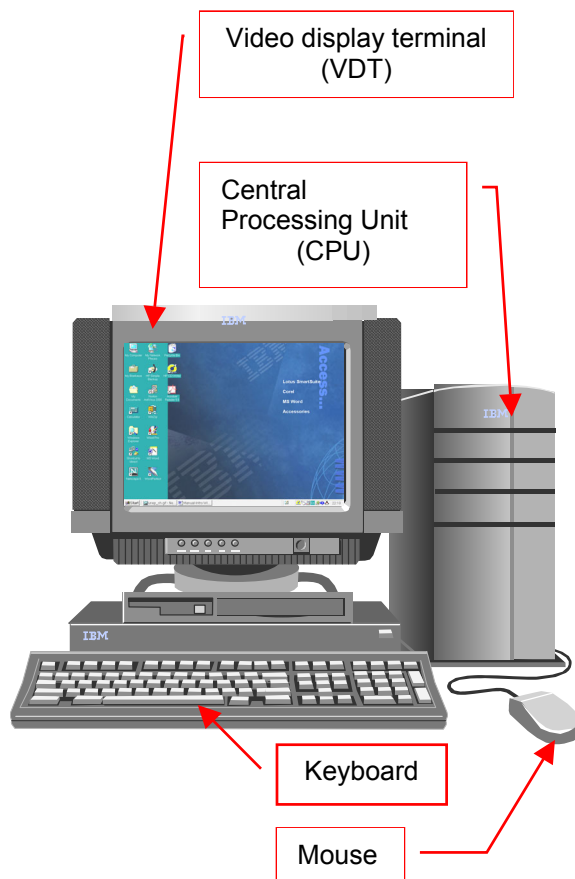
The Personal Computer

The components of a personal computer include:

- The video display terminal (VDT)
- The keyboard
- The mouse
- The central processing unit (CPU) which includes that hard drive where programmes and documents are stored. The main drive on the computer is usually called the C: drive
- The CPU will usually also include a floppy (3 ½ inch) and a CD-ROM drive
- Many computers now include an internal (built-in) modem; a modem is a device that allows the computer to connect to the telecommunications network, a fax modem allows your computer to operate as a fax machine
- Your computer will normally be connected to various peripherals such as printers or speakers

Tip:

If your computer is on a local area network (LAN) you will normally access printers and other peripherals through your network and they will not be directly attached to the computer.



The Desktop

1. Turn your computer on.

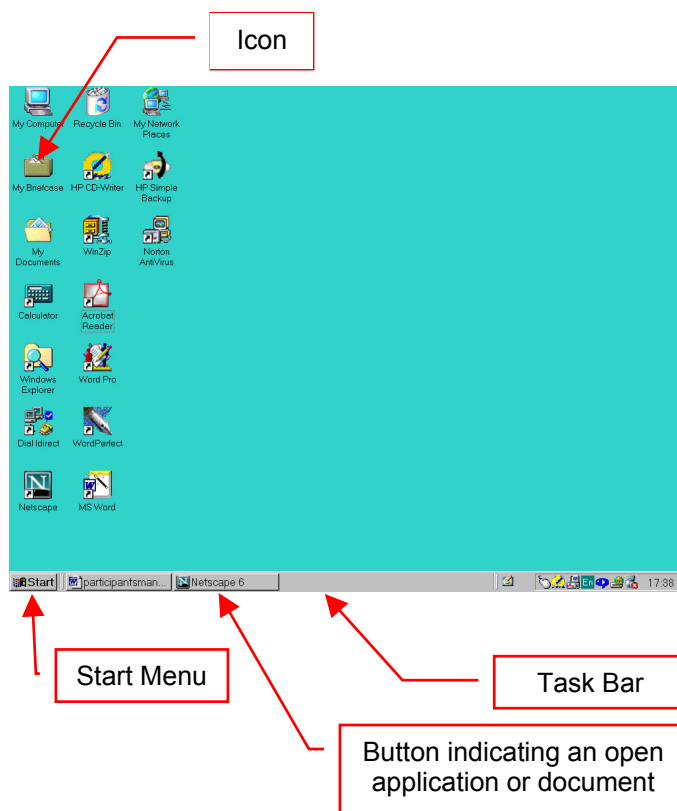
Once you have started the computer, the “desktop” will be displayed on your computer display screen.

Depending on how it has been set up, the appearance will differ on different computers.

On most computers the task bar is found at the bottom of the screen. (If you do not see the task bar move the mouse until the cursor (arrow) moves to the bottom of the screen. This will temporarily bring up the task bar)

This task bar will include the Start menu.

You will also see icons, or small pictures. These icons provide short cuts to programmes or documents.



The main items on your desktop are:

- **The Task Bar**

The task bar indicates when an application is open by showing a button.

There may also be some small icons that are associated with certain applications that are operating in the background.

- **The Start Menu**

The Start Menu is used to start or open various applications programmes installed on the computer or to open existing documents.

- **Shortcuts represented by Icons**

The various icons on the desktop provide shortcuts to applications or documents. You can use these shortcuts to open applications or documents directly from the desktop rather than using the Start Menu.

Tip:

You may have to log on to your computer by entering a user name and password.

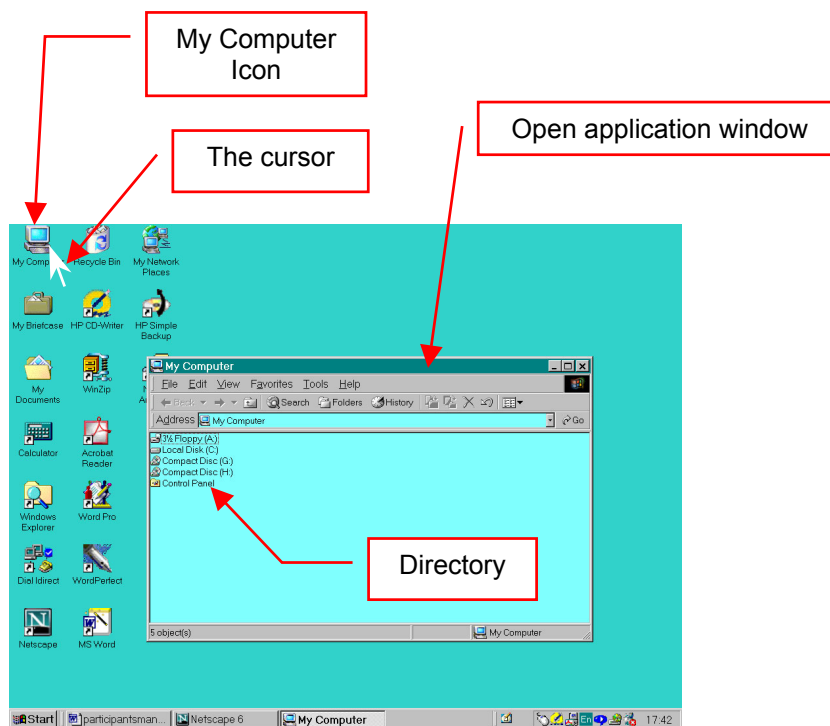
Using the Mouse

Double Click

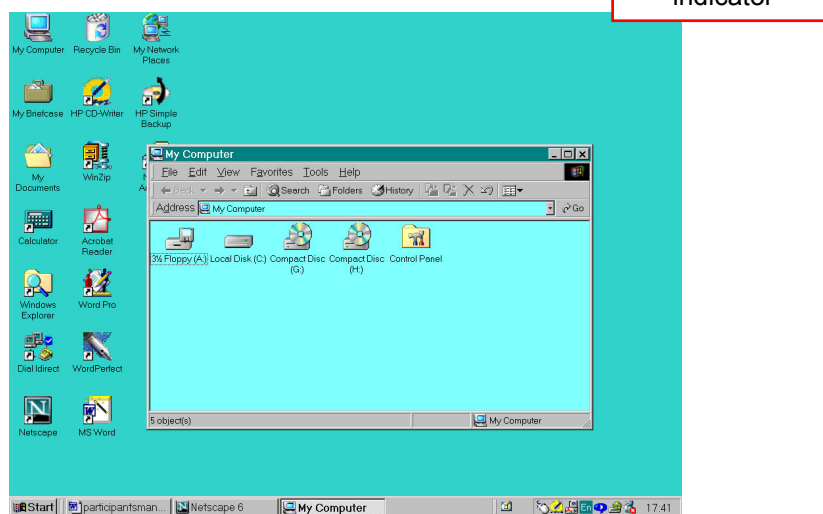
In Windows, the “Double Click” is often used to start a programme or open a document. It is done by pressing on the left button of the mouse twice in quick succession (e.g. to the count 1,2).

2. Using the mouse, *move* the cursor over the “My Computer” icon. Using your index finger, “*Double click*” on the left button of your mouse.

A window will open which will provide a listing of the contents of the computer:



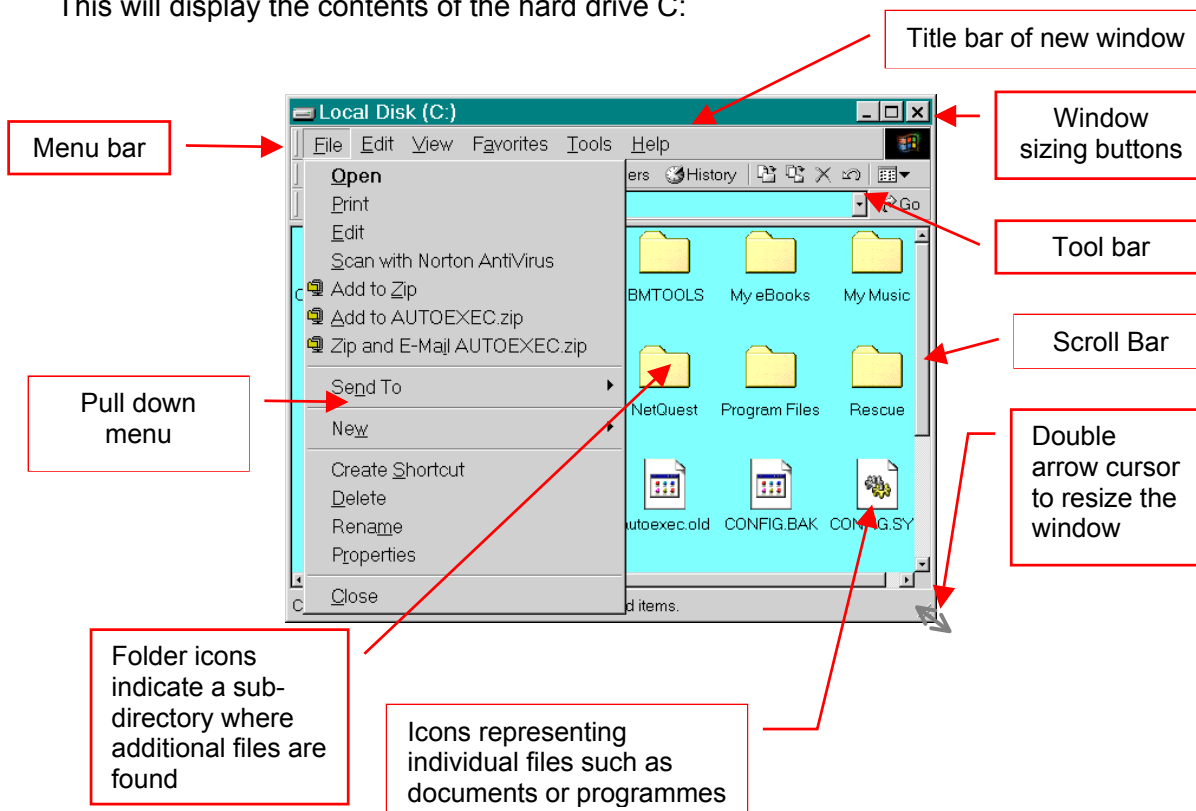
The same directory using large icons:



Depending on the components installed you will see various icons. Typically there will be the following:

3 1/2" floppy [A:]
Local drive [C:]
Compact Disk [E:]
Desktop

- Move your cursor over the C: drive and double click. This will display the contents of the hard drive C:

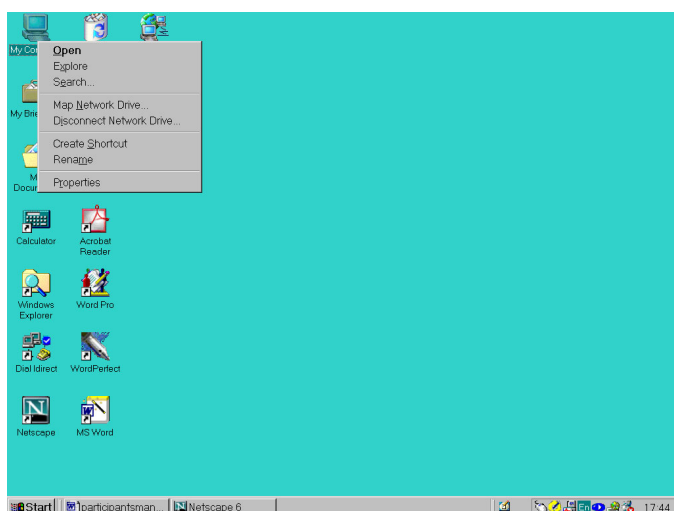


- Common elements of a window are:
 - The title bar at the top
 - The window sizing buttons on the right hand side of the title bar
 - The menu bar below the title bar
 - A tool bar with icons below the menu bar
 - Scroll bars at the side and bottom
- As you move your cursor over the menu bar, the different menu titles will pop up into little buttons. To see a menu click on its name. A menu will drop down as seen above. Menus provide various commands to assist you in your task.
- Move your cursor down the menu. It will highlight each menu item in turn. Once you select the item you need, click to start the operation. Repeat this operation on other menus to become comfortable these movements.

- Move your cursor to the scroll bar on the right. Press on the right mouse button and move the scroll bar button down to see what is further down. Move it back up to get back to the top. Similarly the scroll bar on the bottom allows you to move across and back.
- You can double click on the folders to see the contents of the folder.
- You can double click on a document to open it.
- Move your cursor to the window sizing buttons on the top right of the window for the document or folder you have just opened.
- Place the cursor on the middle button and click once. This will change the size of the window. Click it again, and the window will return to the previous size.
- The button with the _ will minimize the window (make it disappear). To restore the window click on the application button found on the task bar at the bottom of screen.
- Close the window. To do this you can either use the close command in the File menu or click on the x button on the upper-right corner of the window frame.

Right Click

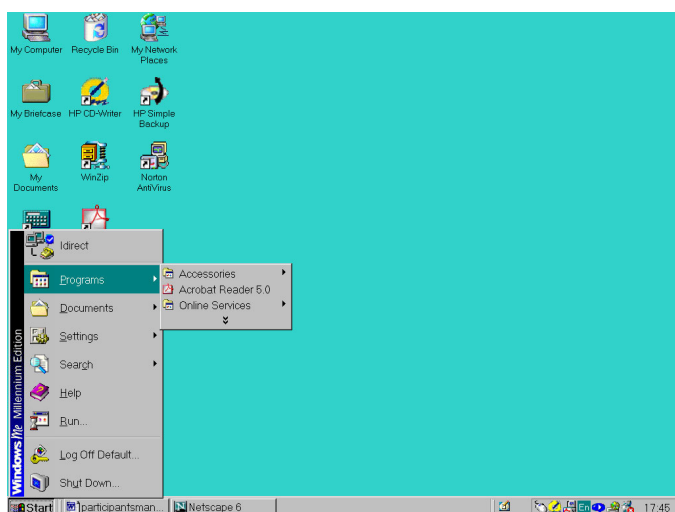
3. We have used the left button of the mouse. The right button has a different function, which is sometimes useful.
- Move the cursor over an icon and click on the right button of the mouse. A small menu will appear. Move your cursor to highlight a command and click to start the action.



- Move your cursor to the desktop background and right click again. A different set of commands will appear.

Start a Programme

- To use a computer for certain tasks you need to use programmes or applications. There are several ways to start a programme.
 - In the exercise above we started a programme by double-clicking on its icon found on the desktop;
 - However, not all programmes will have a “shortcut” on the desktop;
 - All installed Windows programmes can be started using the Start Menu found on the task bar.
4. Click on Start;
- A menu will pop up. Highlight Programmes;



- This will bring up a sub-menu as illustrated above (The items on the menu will vary depending on the software that is installed in the computer). Select Netscape or Internet Explorer and click using the left mouse button;
- This will start the programme that we will use to access the Internet (Note the application button that will appear on the task bar once the application starts);
- Minimize the browser window using the – sizing button (Note the change in the application indicator button on the task bar).
- You can start another programme such as the word processor, Microsoft (MS) Word. Double click on the associated icon on the desktop or select Programmes on the **Start** menu (Hint: MS Word may be found under MS Office);
- Note the additional task button on the task bar.

- Each time you open a document or start a program, a window will open on the “desktop”. Several documents or applications can be opened on the desktop at the same time. Each window will have an associated button on the task bar. The button of the active window will be “pushed in”.
- You can switch between windows by clicking on the task button in the task bar.
- Look at the similarities and differences between the windows. Each window will have a Menu Bar with menu names across the top and a tool bar that provides icons with short cuts to certain commands or functions.
- Switch between the browser and word processor windows.
- You can practice getting familiar with the use of windows by opening a document and editing it or typing a new document.
- Use the edit commands to copy and paste. First highlight some text by moving your cursor to the beginning. Click on the left button of the mouse, and with the button pressed down, move across to highlight some text. Once you have highlighted some text, release the mouse button.
- Move the cursor to the edit button and click to pull down the menu. Move the cursor to highlight “Copy” and click on the left button.
- Now move your cursor to where you want to copy the text and click. Return to the edit menu and this time highlight and click on “Paste”. The copied text will appear.
- Highlight the text again. This time use the Cut to remove the text. Paste it in a different location.
- If you make a mistake, you can always go to the Edit Menu and “Undo”.

Close a Programme

5. There are two ways in which you can close a document or programme.
 - You can use the x sizing button on the top right hand corner of the window or you can select close from the File menu.
 - If you have made changes to a document or file, you will be prompted to save the changes. In this case, we are not interested in keeping the document we were practicing on. Click on “No” and continue.
 - If you accidentally close the document, you can click on “Cancel” to return and continue your work.

Turning Off the Computer

When you have finished your work and want to turn-off the computer:

- Close all programmes by using the exit or close command in the File menu or clicking on the x button in the window title bar.
- 6. Move the cursor to the Start button on the Task Bar and (left) click;
- Highlight "Shut Down" and click;
- You will get a dialogue box with several options such as:
 - Shut down
 - Restart
 - Log off and reconnect as a new user
- Choose "Shut down" to turn off your computer. Your computer will shut down, and it will then be safe to switch off the power.

Tips to Keep Your Computer Safe

Lightning and current fluctuations can destroy components of your computer.

- Use a power regulator (UPS) to maintain the power more constant;
- Have a battery back-up – this will give you time to save your work should a power interruption occur;
- Disconnect your modem and computer at the end of the day;
- These precautions will greatly reduce the chance of a mishap.

Unit 7 - Introduction to the Internet Browser

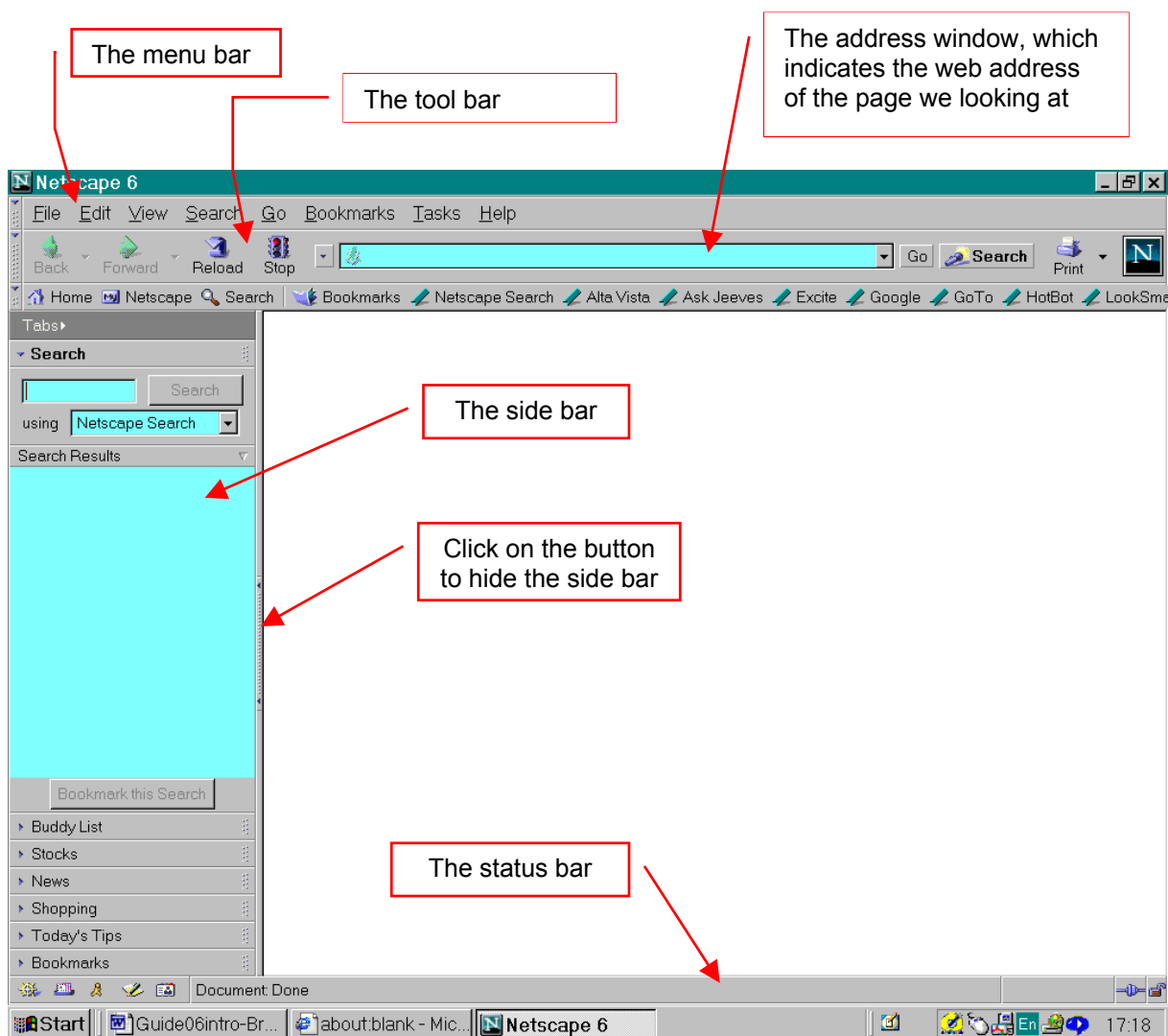
The Browser Window

The two most popular browsers are **Netscape** and **Internet Explorer**.

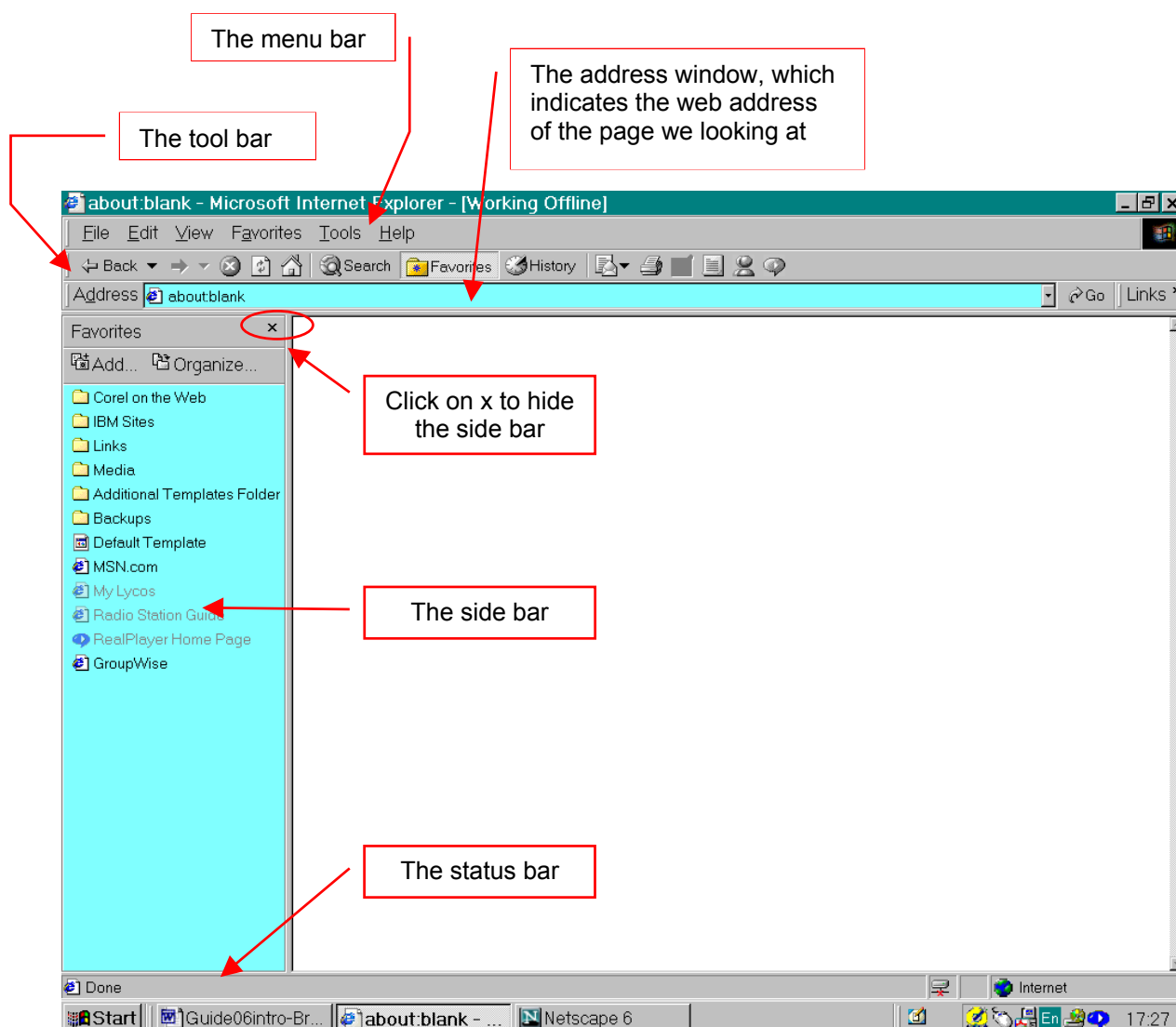
The illustrations are a guide. What you will actually see on your computer and the features available may vary from the descriptions and illustrations in the manual as software gets regularly updated.

1. With your computer on, start the browser: *Double-click* on the Browser Icon or use the Start menu.

The Netscape Navigator Window



The Internet Explorer Window



- The overall structure of the window is the same in both Internet Explorer and Netscape. And although there are differences in the layout and terminology, they offer similar capabilities.
- Like all windows programmes it includes a Menu and a Tool Bar. The Tool Bar includes the Address Window, where the address of the web page or URL that is currently active is seen. See Table 1 for information on the URL and its meaning.
- Depending on the set up, the browser may open with a visible side bar. It can easily be hidden (see illustration above).
- The look of the browser window can be customized. More information on this is available in Unit 14: Additional Browser Functions.

TABLE 1: About URLs

For an exchange of information to occur on the web, computers must be able to recognise each other. A unique Internet Protocol (IP) address is assigned to a computer that is linked to the web. As it is a numeric address, it is hard to remember. A domain name system (DNS) has been developed. To use a domain name, an organisation or individual must first register it. Once it has been registered it is added the index of domain names that links the name to the specific IP address.

Figure 1: The URL

The URL – unique resource locator – is made of several parts:

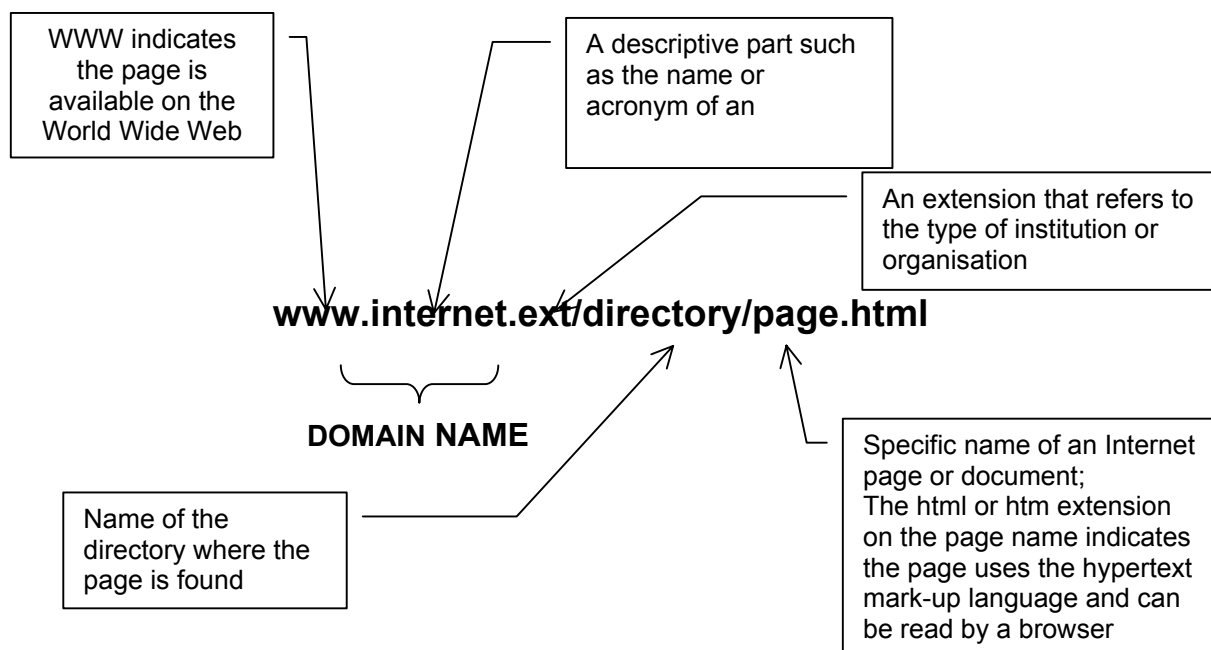


TABLE 1 (Cont'd)

Country Extensions

The US does not generally use a country designator. Other countries have the ISO two-digit abbreviation as top-level domains, for example:

.ch = Switzerland
.fr = France

.uk = United Kingdom
.za = South Africa

Naming convention and control over the use of country designation can vary by country. Country extensions can also be accompanied by additional domain designators. Here are some examples of URLs using a country designator:

www.ec.gc.ca	= Environment Canada
www.defra.gov.uk	= UK Dept. for Environment, Food and Rural Affairs
www.nihs.go.jp	= The National Institute of Health Sciences in Japan
www.london.ac.uk	= University of London
www.utoronto.ca	= University of Toronto

Many organisations or businesses outside of the US have registered names with the extension .com, .org, or .net. Therefore do not rely on the country designator to identify the country of origin of the owner of the site.

Caution!

On November 16, 2000, the Internet Corporation for Assigned Names and Numbers (ICANN) approved seven new domains:

- .biz for businesses and corporations
- .info for information-based services such as newspapers, libraries, etc.
- .name for individuals' and personal websites
- .pro for professions such as law, medicine, accounting, etc.
- .aero for services and companies dealing with air travel
- .coop for co-operative organizations
- .museum for museums, archival institutions, and exhibitions

Implementation of these names will be done over several years, with .biz and .info becoming effective late in 2001.

Common Error Messages

The connection was refused...: This error usually indicates that the computer you are trying to reach is not currently on-line. Click on OK and try again later.

DNS entry not found: This error message will indicate that domain name you typed or tried to access was not found in the index. The site you are trying to access may not exist. Check that you have not made a misspelling.

Error 404: Page not found: This is probably the most common error message that you will experience when searching on the Internet. Most often this is the result of a page having moved to a new location or removed completely. It may also occur if you have mistyped the URL – the URL is case sensitive, and every punctuation mark is important.

Navigating on the Web

Accessing a Site

2. If you know the address of a site, the easiest way to get to the site is by entering the address or URL in the address window;

Type in the web page address **www.unep.ch** in the address window then *press enter*;

This will bring us the home page of the Geneva Office of UNEP.

Tip:

If you have previously entered the same or similar address it will appear in a menu box. You can move your cursor to highlight the complete address without retyping it all over again.

Hyperlinks

Hyperlinks are links between web pages. On most web pages, hyperlinks appear as underlined text in a different colour.

3. Use your mouse to *move* your cursor over the web page; you will see the cursor changing from an arrow to a hand. Highlight **Chemicals Unit** then *click once*.

Tip:

Your cursor becomes a hand when it is over a hyperlink



Also note that the URL of the link will appear in the status bar.

Back and Forward

4. You navigate backwards and forwards on pages already visited by using the Back and Forward buttons on the Tool Bar.
 - Use the Back button to return to the UNEP Geneva Home Page.
 - Note that the Forward button is now activated. You can move forward to the Chemicals Unit page.
 - Note the change in colour of the link "Chemicals Unit". On most web pages, recently visited links will appear in a different colour.

Creating a Bookmark or Favourite

5. If you find a site that you find useful and expect to want to visit again, you can save it as a bookmark or favourite. Use the forward button to return to the UNEP Chemicals page <http://www.chem.unep.ch/>.

In Internet Explorer:

- Click on "Favourites" on the Menu Bar;
- On the pull down menu, highlight and click on "*Add to Favourites*";
- This will give you a dialogue box;
- You can keep the name of the Favourite as it appears or modify it;

- If you do not specify a folder it will be added to the main list of Favourites;
- Click on a folder or create a new folder in which to file your Favourite.

In Netscape Navigator:

- Click on "*Bookmark*" on the Menu Bar;
 - On the pull down menu, highlight and click on "*Add Bookmark*";
 - If you click on "*Bookmark*" again, you will find the new page at the bottom of the list of Bookmarks;
 - If you choose "*File Bookmark*", you will get a dialogue box. Modify the name of the bookmark if you wish, and click on a folder or create a new folder in which to file your bookmark.
6. In the future, when you want to return to this page, go to the Favourite or Bookmark menu, and click on the name of the site. If you have added your bookmark to a folder, highlight the folder name to get a sub-menu, then click on the site's name.

Sites Opening in a New Window

Depending on how the page has been created, some links will open in a new window. For example:

7. Use the Back button to return to the UNEP Geneva page: www.unep.ch.
- Click on the link "*Regional Office for Europe*";
 - If you look on the task bar, you will notice an additional browser button. This indicates that the page has appeared in a new browser window.
 - In this case to move back and forward between the two sites you need to switch between windows. Do this by clicking on the appropriate button in the task bar to activate the window.
 - To exit the site, you can also close the window (Hint: click on the x in the top right hand corner).

Tip:

Whenever you click on a link and it seems that nothing has happened, check to see if a new window has opened.

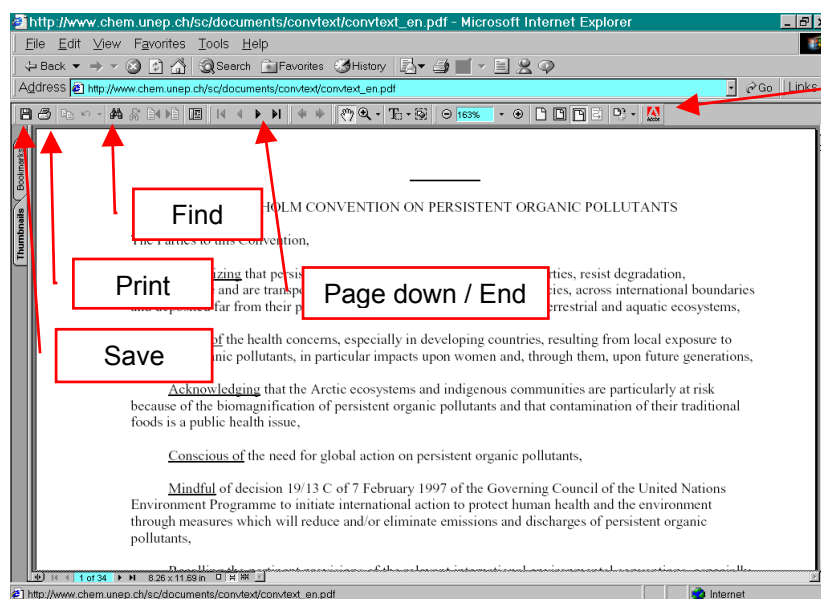
Opening a Document

Up to now we have been moving between web pages. In the following example we will look at opening or downloading a document.



Documents on the web can be found in any format. You will need the appropriate software to read these documents.

The most popular format for documents on the web is the Acrobat portable document format or pdf. To open or read these documents you need the Acrobat reader, which is available for free.

8. Use your bookmark to return to the UNEP Chemicals home page <http://www.chem.unep.ch/>;
- Click on the Persistent Organic Pollutants, then on the link to the Stockholm Convention home page;
- Click on “English” to get to the text of the POPs convention in English;
- Depending on how your browser has been set up, the file will open in an Acrobat frame inside the browser window (as shown below) or in a separate Acrobat window;
- If you do not have the Acrobat installed as a helper application or plug-in, you will be asked to save the file to disk;
- Large files will take a while to open;
- Note the Acrobat tool bar – you need to use this tool bar for functions on the document;



Acrobat tool bar
inside the
browser window

- It is becoming common for sites to indicate the type and size of document. For example they will indicate the format of a document, either by using extensions like doc or pdf, or by showing an icon (e.g.  ).
- If the document type is not shown, check the URL that appears in the status bar when you your cursor over the link. If the URL ends with pdf, then the link is to a document that uses the Acrobat reader.

Acrobat Reader

- If you do not already have the Acrobat reader installed as a plug-in or application helper you will need to download it. Many sites will provide you with a link so that you can download the reader. Otherwise go to:

<http://www.adobe.com/products/acrobat/readstep.html>

At the bottom you will find a link to download the free Acrobat Reader.

9. Become familiar with the Acrobat Tool Bar:



Open a document



Save the document



Print the document



Find text within the document



Show or hide navigation pane (sidebar). If the author has included links, you move through the document section by section.



Go to first page, previous page, next page, or last page of the document



Move forward or backward to specific pages you have already visited



The hand tool allows you to pull the text up, down or sideways in the document – an easy way to scroll



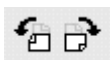
The magnification tool – zoom in (+) or out (-)



The select tool: allows you to select text, text within a table or column, or graphics



Sets the zoom to 100%, to fit within the window or to fit the size of the window



Rotate the page (a way to help view a page that is in landscape format)

Find

A command we will use often is *"Find on this page"*. This allows you to locate specific text on a web page or in a document.

10. Use your bookmark to return to the UNEP Chemicals home page;
 - Click on the "Search" menu (Netscape) or "Edit" (Explorer) and then highlight and click on "Find on this page" – a dialogue box will appear;
 - In the search window, type some text, e.g. "search";
 - If necessary, specify how to Find (e.g. match case, up or down);
 - Click on the "Find" button.
 - If the character string is found, then it will appear highlighted.
 - Click on find again to go to next occurrence of the term. If the term does not appear, you will get the message *"finished searching the document"* (Explorer) or *"the text you entered was not found"* (Netscape).
 - There is also a Find command in the Acrobat reader and in many other Windows-based applications.

Tip:

On the File menu, to the right of "Find" is the notation Ctrl+F. This is the keyboard command for "Find". Instead of using the menu you can press on the Control key and the letter f at the same time.

Opening a New Browser Window

Sometimes you might want to have two Internet sites open at the same time. You can do this by opening a new window.

11. Click on the File menu.
 - In Explorer: Highlight "New" and then click on "Window" in the sub-menu;
 - In Netscape: Click on "New Navigator Window";
 - A new window will open over the current window; note the extra task button on the Task Bar.
 - In this window enter the URL for the US EPA site "www.epa.gov".
 - You may want to bookmark this site for later use.
 - Click on the button in the Task Bar to switch between the two windows.

Tip:

The keyboard shortcut for opening a new window is Ctrl+N.

Exercise

12. Return to the US EPA Home page or the UNEP chemicals Home Page.

Follow links of interest to navigate through the sites to become familiar with them. (See Unit 12 for more details on these sites)

Unit 8 - Introduction to Search Engines

We have seen how we can get information on the Internet by entering the address of a site and following hyperlinks to other pages.

Since one does not know the address of all the Internet sites that may be of interest, Internet-based software called search engines have been developed.

There are many search engines available (See Table 2 for some of the more popular ones). Although they all work in a similar fashion, each has specific strengths and weaknesses. Search engines use two basic methods to provide links to various sites – index or directory. Most search engines now combine these two approaches.

Indexes use a “spider” programme to scout through the web on a periodic basis. It will then use the words on the page to create an index. When you search it looks for the terms in its index and returns back with a series of hyperlinks to pages it has previously found on the Internet.

Directories classify sites by topics using selected subject terms and often assisted by human intervention. Depending on the information you are seeking, either an index or a directory will be more useful. Generally you use a directory when you are looking for a broad concept, and an index if you are looking for something more specific.

Tip:

There is no “best” search engine. Each has its strengths and weaknesses. If you do not find the information you need using one search engine, try another one.

Table 2

Tip: Commonly Used Search Engines

Altavista
<http://www.altavista.com/>

Google
<http://www.google.com/>

Infoseek
<http://infoseek.go.com/>

Lycos
<http://www.lycos.com/>

Excite
<http://www.excite.com/>

HotBot
<http://www.hotbot.com/>

LookSmart
<http://www.looksmart.com/>

Yahoo!
<http://www.yahoo.com/>

Simple Search

1. The simplest way to start a search is to type a keyword (e.g. *toxic chemicals*) in the address bar of your browser window and to press enter or click on the button “Go” (Internet Explorer) or “Search” (Netscape Navigator) next to the address window.

- This will search the default search engine of your browser (MSN Search in Explorer, Netscape Search in Navigator). Your results will appear in the main window as a listing with a title and short description. Each title will be a hyperlink to a web page or document.
- Move your cursor over a title that interests you and click to follow the link. If necessary use the Find command to locate the relevant part of the page by searching for your keyword on the page.
- Both Explorer and Navigator include links to some search engines. In Explorer you will find them under Favourites, in Netscape under Search.

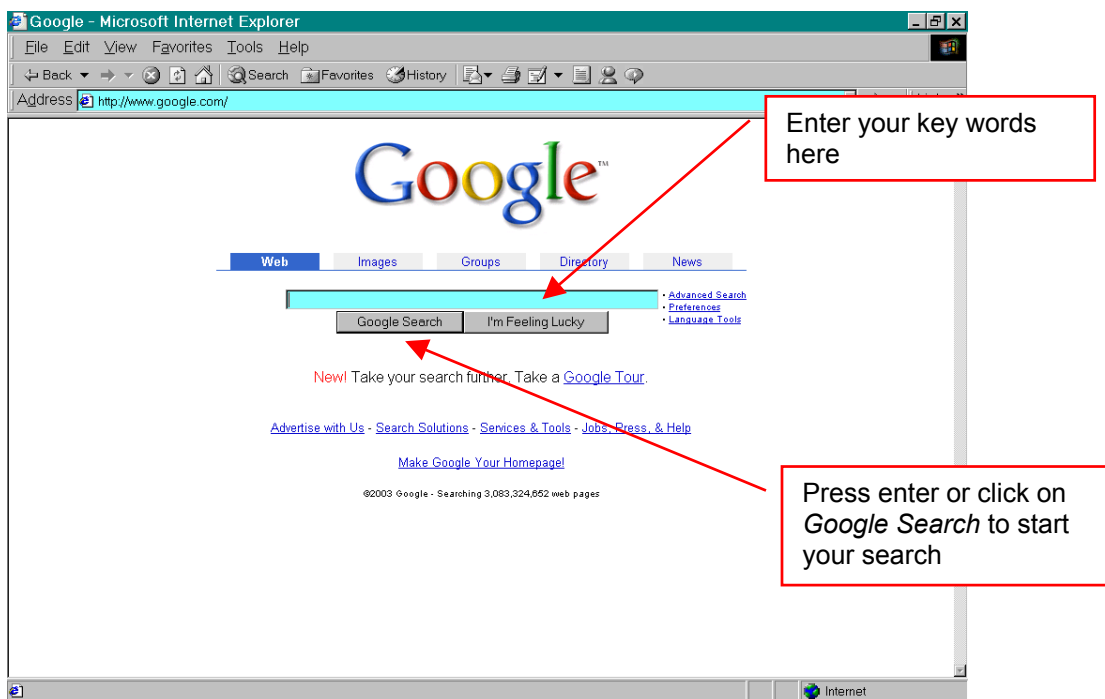
Tip:

Most service providers will set-up to start your browser on their home page and will provide a search function on their site.

Google

Although the material was correct at the time of writing, the Web is changing constantly. The illustrations are a guide. What you will actually see on your computer and the features available may vary from the descriptions and illustrations in the manual.

2. A popular search engine is Google. Go to Google Search at www.google.com. Bookmark the site for future use.
- In the centre of the Google page you will find a box or window. This is the search window. Enter here keywords for the topic or document you are looking for, for example *toxic chemicals*.
- Click on the Google Search button just below the window.



- Scan through your results and follow the links that are of interest.
- Compare the results between this search and the one you did using the default browser.
- You can go to the next page of results by clicking on next, or the number 2 at the bottom of your results page.

Additional Features

- Under the title of the search result you may have the following notations:
 - Cached: It is often faster to retrieve a cached page. However, this may not be the most up-to-date page;
 - Similar Pages: Google will look for other web pages that have a similar content;
 - More results from: Will look for more pages from the same site which contain the same keywords.
 - View as HTML: Google will convert pdf files into html format;
 - Category: The category where the site has been indexed in the Google Directory;
 - Translate this page: This allows Google to translate a page that is not in English.
- At the bottom of the search results page, next to the search window, there is the option to "Search within these results". This allows you to use additional key words to make your search more specific. When you click on the link, you get a new search page.
- Note the following headings at the top of your Google search results page: Advanced Search, Preferences, Language Tools, Search Tips.
 - Advanced Search: Provides for more specific search queries. Unit 11 looks at some advanced search techniques;
 - Preferences: allows you to set the language of your Google interface and to modify the way your results are presented;
 - Language tools provides you with a translator. (Unit 10 looks at translation on the web) You can also choose to use a Google mirror site in a specific country;
 - Search Tips provides guidance on how to search using Google. It is recommended that you review these to become more familiar with Google.
- Note the tabs at the top of your results: Web, Images, Groups, Directory, News. This allows you to limit the search to a certain part of the Internet or types of files.
- Use the Back function to return to the Google home page. Note the Tabs at the top of the search window

and the options on the right-hand side of the search window.

- To get help on how to search Google, follow the link “Take your search further. Take a Google Tour” found under the search window.

AltaVista

3. To get familiar with another search engine, open a new window and go to the Altavista Home page www.altavista.com. Bookmark this site for future use.
- You will again find a search window near the top of the page. Enter here keywords for the topic or document you are looking for. Repeat the same search you just did in Google and compare the results.

Enter your key words here

Press enter or click on Find to start your search

Advertising

Additional Features

- Under the search window, note that you can limit your search to the U.S.
- Note that the search will be limited to web pages in either English or Spanish. Click on the dot next to “All Languages” to find pages in any language.
- AltaVista has customised its search page for various countries. You can get a list of these sites by following the link “AltaVista USA” at the top right corner.
- Next to the Search button, the text more “More Precision” is a link to the assisted search page. Unit 11 looks at some advanced search techniques.

Note:

On many commercial sites you will find advertising. It comes in all shapes and sizes and may scroll or include animations. If you click on them you are likely to be directed to the advertiser's site.

At times these appear as a secondary window. If ads open as a new window, close the window using sizing button (x) at the top right-hand corner.

- Above the search button you have the following tabs: Web, Image, MP3/Audio, Video, Directory News. These tabs allow you to search for specific type of files, look for news or browse the AltaVista directory. AltaVista defaults to the Web search.
- To get help in using AltaVista click on "Help" found at the bottom of the page.

Exercise

4. Return to Google and this time search the word *pesticide*. Repeat the search with *pesticides*. Compare your results.
Try this using AltaVista.
Google searches the term exactly as you have entered it. AltaVista by contrast, looks for words that start with your word stem.
5. The Inter-Organisation Programme for the Sound Management of Chemicals (IOMC) was created to enhance co-operation on efforts to enhance the sound management of chemicals among various UN organizations and the OECD.
Use Google and AltaVista to locate the IOMC website. Compare your results. Bookmark the IOMC site for future reference.
6. Use Google and AltaVista to find information on a topic of interest to you, for example:
Toxicity to fish of endosulfan / endosulphan
Health effects of the petrol additive MMT
Statistics on cancer caused by pesticides in East Africa

Tip:

Your search will be more effective if you take into consideration the way the search engine you are using looks for information. Most search engines have a Help function that will give more details.

Meta-Search Engines

As we have mentioned earlier, there is not a single search engine that is able to retrieve information from the whole web. One way to broaden the search is to use a meta-search engine – search engines that will retrieve information using several search engines at once.

7. A useful place to find search engines is the Tool Kit for the Expert Web Searcher from the Library and Information Technology Association (LITA), a division of the American Library Association. Search for LITA or enter the URL:

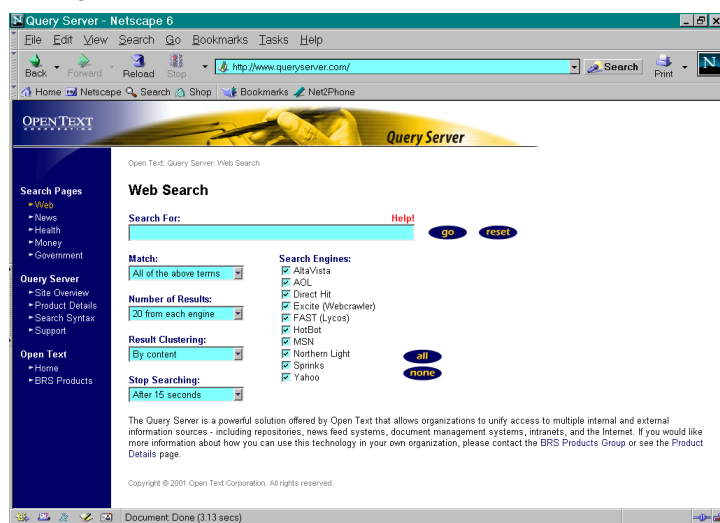
<http://www.lita.org/>

From the drop-down window menu select the Tool Kit. This will bring you to a page that lists various recommended search engines.

You may want to bookmark this site for future use.

Follow the link to the meta-search engine page to get an overview of a number of search engines.

Query Server

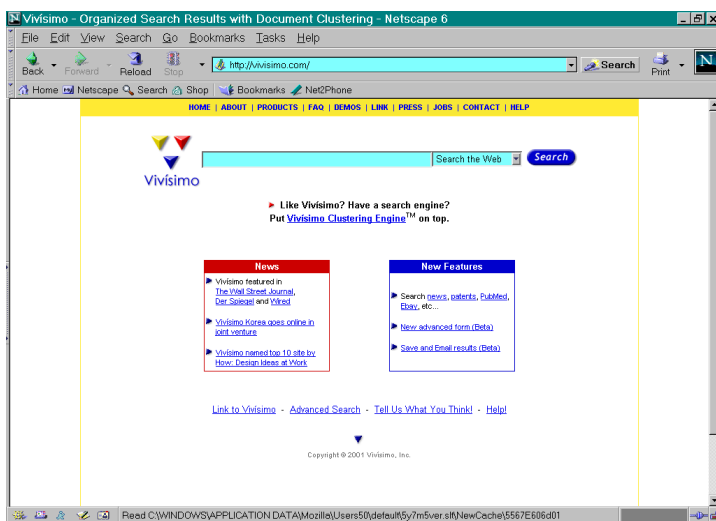


Query Server is found at: <http://www.queryserver.com/>.

- Enter your search term in the search window;
- You can search the whole web, or limit your search to a category: news, health, money or government (select the appropriate category in the side bar);
- You can search using all terms (AND), any terms (OR), or as a phrase;
- You can limit the number of records from each search engine;
- You can customise the order in which your results are listed;
- You can specify the search engines to use in your search;

- You can vary the length of time spent on the search;
- Click on “Search Syntax” to find out more.

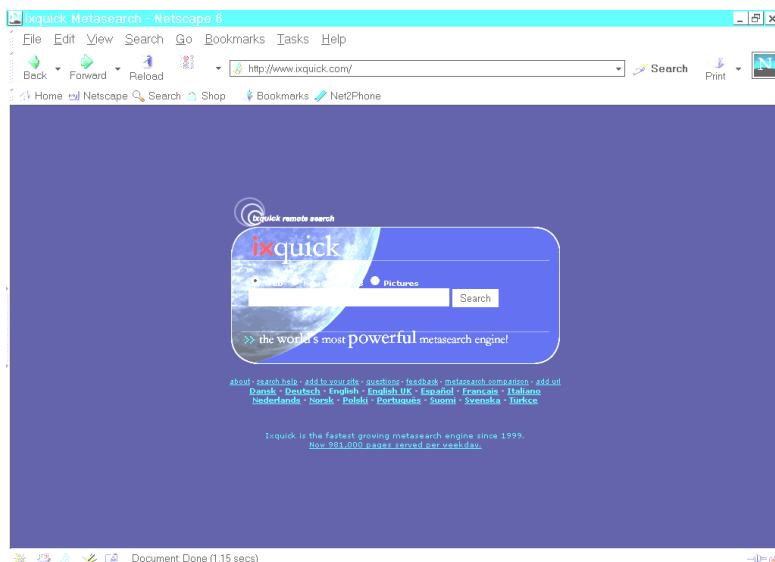
Vivisimo



Vivisimo is found at: <http://www.vivisimo.com/>.

- Enter your search terms in the window. You can also limit your search to specific areas of the web or types of documents, for example, patents, PubMed, or U.S. government sites;
- Go to Advanced Search for greater flexibility and to check Search Syntax to improve your search strategy.

Ixquick



Ixquick is found at: <http://www.ixquick.com/>.

- Enter your terms in the search window;
- You can specify to limit your search to MP3 file, news or pictures;

- Go to "Ixquick Backstage" to get help in defining your search strategy.

Exercise

8. Try some of these meta-search engines. Use the following terms as examples:

arsenic

carbofuran

You can also repeat the search using some of the questions you used in Exercise 6 above.

UNIT 9 – Introduction to E-mail

The Internet has facilitated the spread of electronic mail or e-mail. The main advantage of e-mail is that it can reach the recipient in a very short time and it is much cheaper than using fax. Most programmes now in use allow the attachment of files to the message so that a wide range of documents and other data can also be sent.

When a person sets up an account with an Internet provider, one of the services offered will be e-mail. Usually the provider will give a software programme to install on the computer that allows sending and receiving e-mail. There are many e-mail programmes available such as Eudora, Microsoft Outlook and Netscape Mail.

If your computer is part of a local area network (LAN), you may have an internal e-mail service. This service also allows a person to send messages to and receive them from people outside the network.

Another popular way to send and receive e-mail messages is to use a web-based e-mail

service such as Hotmail or Yahoo! Mail.

Many search engines also offer a free web-based e-mail. The advantage of this service is that it allows a person to access e-mail from any computer that is linked to the Internet. This means that you can access your e-mail account from an Internet Café, or from someone else's computer in another city or country without needing to dial to a specific provider.

In this Unit we look at a popular web-based Internet service: Yahoo! Mail. Although not identical, the various web-based e-mail services offer very similar capabilities. Once you are familiar with one you will be able to set up an account on any other web-based service that you find convenient.

Although the material was correct at the time of writing, the Web is changing constantly. The illustrations are a guide. What you will actually see on your computer and the features available may vary from the descriptions and illustrations in the manual.

Yahoo! Mail**Setting up an account**

1. Go to the Yahoo! home page.
(<http://www.yahoo.com/>)
 - On top of the page you will find an icon "Email". Click on this link.
 - It will go to the Yahoo! Mail page. If you do not have an account click on "Sign Up Now". Yahoo offers three levels of service. On the next page click on "Sign Up Now!" for the Free Edition.
 - A form will appear. Fill out the form:
 - (a) Choose a unique name as your Yahoo ID;
 - (b) Enter a password and then re-enter it in "Re-type password" box;
 - (c) Click on the arrow in the Security question box and select a question;
 - (d) Type your answer to the question – the information here is used to verify your identity should you need assistance with your account such as when you forget your password;
 - (e) Enter your date of birth – this may also be used to verify your identity;

- (f) Enter a valid e-mail address if you wish. Yahoo will then use it to verify your identity if you forget your password;
 - (g) Enter your name;
 - (h) From the drop down menu, select your preferred language and country; if your country is not listed, choose English – United States;
 - (i) If the country selected above is not your own, leave the postal code box empty;
 - (j) Select male or female;
 - (k) From the lists that are given select the industry, job title and specialisation that best describes you;
 - (l) Check the tick box "People Search Listing" if you want your name to appear in the Yahoo! directory. If you prefer to be unlisted (recommended) leave the box empty;
 - (m) If you want to receive occasional e-mail from Yahoo! or Harris Poll On-line leave the check mark there, if not click on the box to delete it;
 - (n) If you are interested in getting e-mails from advertisers in the categories given, click in the appropriate box;
 - (o) Type in the word that appears in the shaded box;
 - (p) Once you have entered all the required information, click on the "*Submit This Form*" button.
- You will get to the page outlining the Yahoo! Mail terms of service. Read through them and click on I Accept.
 - If the name you have chosen for your account has already been assigned, you will get a warning. Yahoo! will offer a variation that you can select, or you can try another name by typing it in the window.
 - If you have made an error or omitted required data you will be prompted to enter it again.
 - Once you have successfully set up your account you will get to your Yahoo! Mail main page.

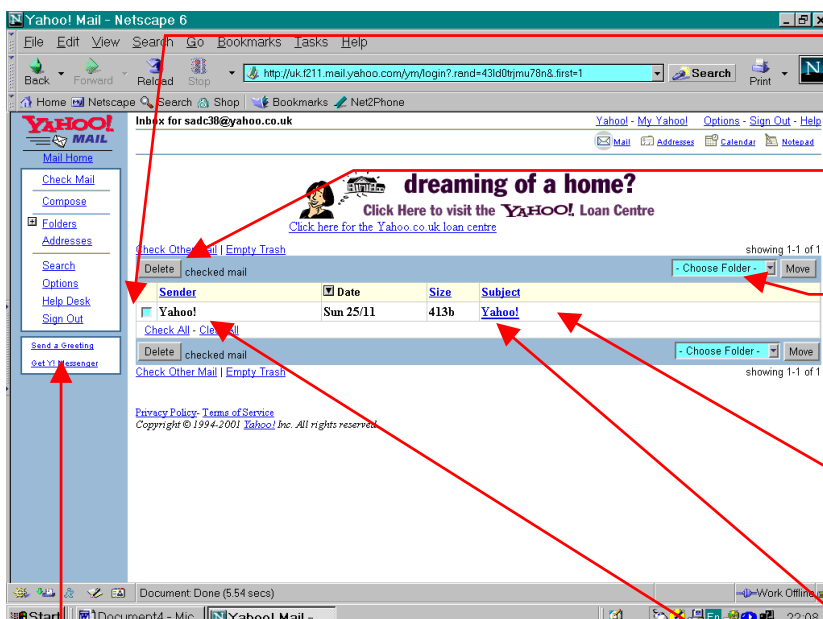
Tip:

If you let your name on the directory, it will be possible for people to find your e-mail address, in a similar fashion as people can find your telephone number when your name is listed in a telephone directory. However, this may result in getting additional e-mail advertising.

Receiving E-mail

2. You are now in your Yahoo! Mail main page. The header tells you the number of new or unread messages that are found in your in-box.
 - You can click on "*Inbox*" to go to your messages.
 - The new messages in your In Box will appear in Bold.
 - The message header includes the name of the sender, the date the message was sent, the size of the message and an indication if the message contains an attachment, and the subject of the message.

The Yahoo! Mail In-box



Click in this box to select items to delete or move to a folder.

Click on the delete button to delete selected items.

Move a selected item to a folder by first choosing a folder then clicking on "Move".

The message in **bold** is a new message you have not read.

Click on the subject to open your message.

This is the name of the sender.

You can follow these links to:
Check your mail,
Go directly to write a message
Manage your folders
Go to your address book
Search your account for certain messages
Set options for your account
Go to a "FAQ" page for help
Sign out of your account

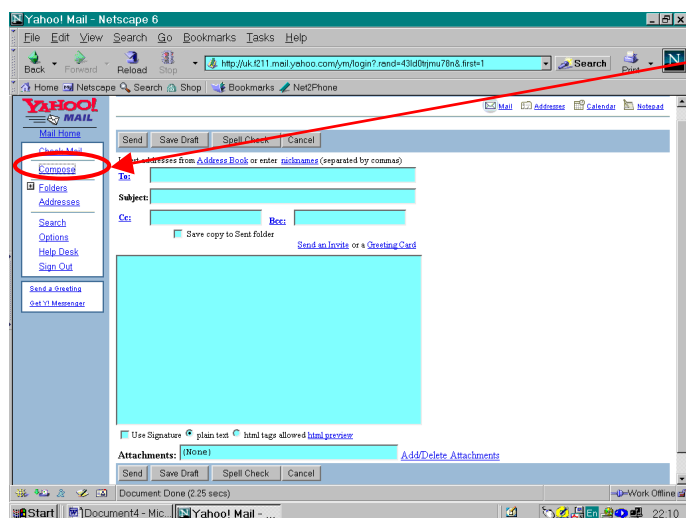
Here are other features to take note of:

- The little tick box on the left of the message line allows you to select one or more messages. Once you have done this, you can either delete all the checked messages or move them to a different folder. This helps you manage your mailbox.
- To delete a selected message, click on the delete button.
- To move to a folder, select a folder (click on the arrow next to the window and highlight a name of a folder) and then click on move.
- If you want to move your mail to a new folder, create a folder first. Click on Folders on the side bar and choose the new folder option.

The message

- To read a message, click on its subject.
- The message is in three parts: The header portion will provide the dates, the address of the sender, the subject, the address of the people to which the message was sent or copied;
- This is followed by the text of the message and then the attachments, if any.
- To reply to the sender click on the “*Reply*” button;
- To reply to the sender and all others who also received this message click on the “*Reply All*” message;
- You can also send this message to another person by using the Forward button: First indicate if you want the message attached to your message or inserted in your text by choosing the appropriate option in the window, then click on “*Forward*”.
- If you have received an attachment, click on “download” to retrieve it.
- You can add the address of the sender to your address book to save it for future use by clicking on “Add to address book” next to the sender’s address.
- You can move your message to another folder by selecting the folder then clicking “*Move*”.
- If you do not want to keep this message, click on “*Delete*”.
- If you have accidentally deleted a message you can retrieve it from the Trash folder. Click on folders, then on Trash. Select the message and move it into the in-box or other desired folder. The Trash folder is emptied periodically. Once emptied, you can no longer undelete your messages.

Sending a New Message



3. **Exercise:** Send e-mail to your course facilitator and colleagues in the class.
- Click on compose on the side bar to get to the *Compose Form* shown above;
 - In the "To:" window, enter the e-mail address of the person to whom you are sending this message. You can send it to more than one person at a time by separating each address with a comma followed by a space;
 - Enter the subject of your message;
 - You can send copies of this message to other recipients by entering their e-mail address in the "Cc:" window. Use this to inform as you would in regular correspondence. You also have the option of sending blind copies by using the "Bcc:" window. You can also enter multiple addresses by separating each address by a comma and a space;
 - Click in the box next to "Save copy to sent folder" if you want to keep a copy of the message after it is sent – this will take up some of your space allocation, leaving less space for your incoming messages;
 - Type your message in the large message window;
 - At the bottom of the message window you have several options:
 - If you have created a signature, you can append it to your message (see below to learn how to create a signature);
 - You can send your message as "plain text" or in html format. Use text unless you know the person receiving the message can read messages in html format. If you choose to send as html, you can preview the appearance of your message;
 - You can also send attachments to your message – "Click on add/delete attachments" to do this (more details are given below);
 - There are four buttons at the top and bottom of the message window:
 - Click on "**Send**" once you are ready to send the message. **Warning:** Once you have sent the message, you will not be able to take it back. If you have not clicked on "*Save copy in Sent folder*" you will not have a copy of your message;
 - If you have not finished your message, you can click on "*save draft*" and finish it later;
 - Before you send your message you can check your spelling by using the "*Spell Check*" function;
 - If you decide not to send this message you can cancel it.

- After you send a message you will get a page confirming that your message has been sent.
- If for any reason Yahoo! cannot send your message you will get an error message. Usually this is due to a mistake in the address. Correct the error and resend your message.
- You can now sign out by clicking on "sign out" found on the side bar or the top of the Yahoo! Mail page.

TIP:

To ensure security of your account, it is recommended that you log out or sign out when you have finished your session.

TIP: How can I tell if the message has been received?

There is no way to confirm if your message has been received. This is why as a courtesy you send a reply to indicate receipt.

If the address you typed is incorrect, you will receive a warning message in your In-box. This may take a few hours. This message will likely say there is a fatal error and indicate "User unknown" as the reason. If this happens, check for misspellings in your address and make sure you have used the correct address. One of the best ways to eliminate errors is to use the reply function when you reply to a message, or to use the addresses saved in your address book.

If Yahoo! has difficulties sending your message because there is a problem with the network, you will receive a non-fatal error message. This message will indicate that the server has tried to send the message for several hours and was not successful. It will also say that it will keep trying for up to five days. If after this time the message still has not been sent, you will receive a second message saying that it has given up. The most common reason for receiving this type of message is when a computer is down or taken off-line for maintenance.

Signing In

4. Now that you have signed out, you can practice signing in.
 - Return to the Yahoo! Main page and click on "Email". On the next page, type in your account name and password.
 - **TIP:** If you are on a shared computer, choose the secure option, which provides greater security for your account
 - **TIP:** Only choose the option "*Remember my ID on this computer*" if you are not concerned about others having access to your e-mail account.
 - Click on "*Sign In*".

Reply to a Message

5. To reply to a message go to your message folder and open the message you want to reply to.
 - Click on either "*Reply*" to reply to the sender of the message only, or "*Reply All*" to reply to the sender and other persons who were copied on it.

- The To: field will already include the addresses. You can include additional addresses in the To:, Cc or Bcc: fields;
- The subject will already be in the subject field. Keep this subject or type over it as appropriate;
- The original message will be copied in the message box. You can type above it, comment at intervals within it, or delete all or part of it as you require;
- All other functions are the same as when you compose a new message (see above).

Receiving Attachments

6. When you receive mail with an attachment, you will see a paper clip icon next to the message size indicator;
- Click on "*Download Attachments*" at the top right hand side of the message to download the attachment;
 - You can download the message or the attachment.
 - You are given the option to check the attachment for a virus. **Always** scan the file for viruses before you download an attachment;
 - If no viruses are found or a virus has been removed you can then continue with the download;
 - If the file is infected and the virus has not been removed, go back to the message;
 - As a courtesy, reply to the sender and advise that the attachment contained a virus. Then delete the email and attachment.
 - Attachments are shown in a box at the end of the message. You can also download the attachment from here. First check the file for viruses. Then click on the "*Download Attachment*" option;
 - In the dialogue box, you may be given the choice to open the file or to save it to disk; click on "*Save this file to disk*" to view it later when you are no longer connected to the Internet; then click on OK;
 - Select the folder in which to save the file;
 - You can choose to rename the file;
 - Then click on "Save";
 - Close the dialogue box and return to Yahoo!
 - Click on "*Back to message*" to get back to the message.
 - Once you have downloaded the file you can exit Yahoo! Mail, and open the file using the appropriate application (e.g. word processor, spreadsheet, etc.).

Note:

Since new viruses are created every day, a virus scan is not 100% effective. If the attachment has a strange name, is unexpected, comes from an unknown source, contains two extensions (for example .doc.exe), **do not** download it. See the Annex for more discussion on computer viruses.

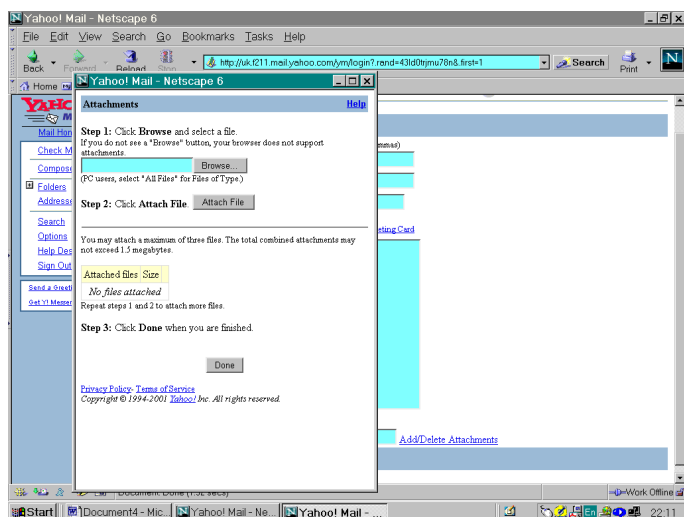
Note:

Your browser may be set up to automatically open the file using the appropriate application. If this is the case, and you want to keep this file for later use, use the "Save as" function to save a copy to disk.

Sending Attachments

7. As mentioned above, in addition to your message you can send documents via e-mail:

- In the “*Compose Form*” (see above) click on “*Add/Delete Attachments*”;
- You will get a pop-up window.



- The easiest way to attach a file is to use the “browse” function:
 - Click on “*Browse*”,
 - Use the dialogue box to locate the file you want to attach – you can go directly to “*My Documents*” if your file is there;
 - Once you have selected your file click on “*Open*” and you will return to the pop-up window;
 - Click on “*Attach File*” to attach your file – it may take a while for the file to get attached;
 - Once your file is attached, the name of the file will appear below the attach button;
 - You can repeat “*Browse*” and “*Attach*” to add more files, up to a maximum of 1.3 megabytes. If you attach a wrong file, click on the icon on the right side of the file name to delete the attachment. Once all your files are attached, click on “*Done*” to return to your message form.
 - You can attach or delete attachments at any time before you send your message by clicking on “*Add/Delete Attachments*” in the “*Compose Form*”.
8. **Exercise:** Reply to a message sent by a colleague in the class and attach a document.

Address Book

As we have seen above one way to add addresses to the address book is to use the "*Add to Address Book*" function in open message.

9. **Exercise:** Save the address of class participants

- Open a message you have received.
- Click on "*Add to Address Book*".
- On the screen you will find a table with the following headings: Email Address, First Name, Last Name, Nickname.
- Check the boxes next the e-mail address to add an address to your address book. Include the name of the person in the appropriate window. You can also choose a nickname. If you do, you can just type the nickname in the address window of the compose form to send a message to that person.
- You also have the option of adding the person to a list. A list is a group of addresses. If you commonly send messages to a group of persons, such as members of a committee, you can create a list (see the section "Creating Lists or Groups" below). Then you can type the list name in the address window send a message to the whole group without the need of typing each address individually.
- To add an address to a list, click on the button next to "Add as a list";
- Create a new list or select an existing list;
- You can also "*Add more detail*" to the record of each person – click on the button to get a form where you can fill out information such as mailing address, telephone numbers, and etc. for the person;
- Once you have selected all the addresses to add, click on "*Add Checked*";

It is also possible to go directly to the address book.

- Click on "*Addresses*" to get to the address book.
- Add an address by clicking on the "New Contact" button. This will provide you an input form as in "*Add More Details*".
- Provide at least a name and an e-mail address before you save the form.

Using the Address Book

You can use your address book to select the names of people you want to send your message:

- Click on "*Compose*" to start a new message. Above the address window click on the underlined text: "*Address Book*". This will open a new window.

- In this window click in the box under To:, Cc: or Bcc: next to the name of the person, to place the address in the appropriate field of the Compose form;
- Click on done to return to the Compose form.
- **Tip:** You can search your address book to find a name.
- **Tip:** You can move down the address book by selecting the first letter of the last name.

Creating Lists or Groups

There are two types of contacts: individual or groups. If you will regularly send messages to the same group of people you can create an e-mail group or list. This allows you to then send messages to the group without entering the addresses individually every time.

- To create a list you first need to have each member of the group listed in your address book;
- Open the address book and click on “*New List*”;
- Type a unique name for your group;
- Click on a name in the left-hand window to select it;
- Click on “*Add*” to add it to the group in the right window and repeat the steps for additional names;
- Save the group once finished.
- To remove a name from the list, select the name in the list in the right window, and then click on “*Remove*”.

8. **Exercise:** Click on “*Compose*” and use your saved addresses to send a message.

Creating Folders

9. Folders are a useful way to organize your mailbox:
- To create a folder, click on “*Folders*” to go to the folder page;
 - Type a folder name and click on “*Create Folder*”.

Tip:

You can modify your *Options* to set up rules to automatically sort incoming mail to specific folders.

Modifying your Mail Options

To modify and customise your mailbox, click on “*Mail Options*” at the to right margin. There are 3 sets of options: You can customise the way Yahoo! Mail functions, you can manage your account and you can select additional services.

- General Preferences: To customise your In-box and modify your out-going name and address;

Tip:

To ensure greater security in your account it is recommended that you change your password periodically (every one or two months).

- Signature: To create or modify a signature file (see details below)
- Vacation Response: Have Yahoo! Mail send an automatic response to advise your correspondents that you are not reading mail for a period of time and provide an alternate way to contact you if you desire;
- Mail Accounts: Set up Yahoo! Mail to send or retrieve messages from another e-mail account – this is useful when you are travelling (more detail below).
- Block Addresses: To reject messages sent from a specific address;
- Filters: To automatically sort your incoming messages;
- To change your password or to modify your other account preferences click on “Account Information” on the left-hand side.

Creating a Signature

A signature is standard text that you add to the end of your message. It typically includes your name, affiliation, address, phone number, fax, web address and any other useful information that you regularly add to the end of your message. To create or modify a signature:

11. On the Options page click on “*Signature*”;

- In the text window, enter the text as you want it to appear (maximum 7 lines);
- Indicate if this is to be in plain text (preferred) or html format and if you want the signature to be added as a default option (refer to the compose form);
- Click on “Save” once done;
- You can now use the “*Use signature*” option when you compose a message.

Reading Mail from Another Account

POP stands for Post Office Protocol. Not all e-mail servers use this protocol, but if you have a personal account from a local service provider (ISP) you probably have a POP account. You can therefore use Yahoo! Mail to retrieve your messages from any computer that has an Internet connection. As you do not need to dial your service provider, this can be especially useful when you are travelling and want to check your e-mail.

You will need the details of your POP account and server before you can successfully use this option.

12. On the Options page (see above) click on "*Mail Accounts*";

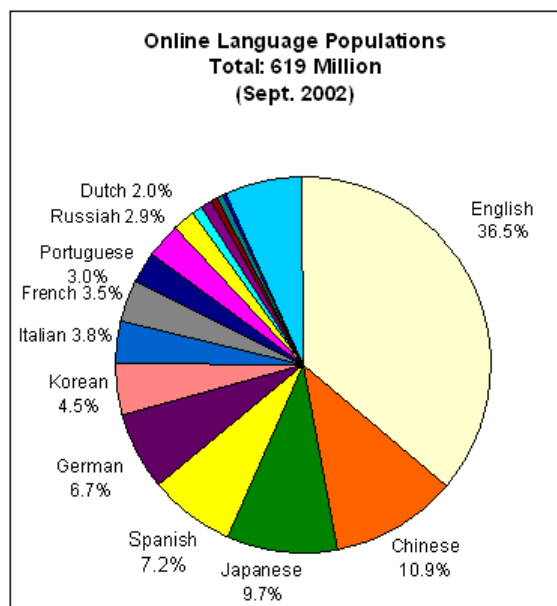
- Click on "*Add*" and select a name for your account (e.g. home, work) and click on continue;
- Enter the details of your POP account: Name of mail account server, your account name, and your password;
- Select the colour indicator that will identify the source of the e-mail and click on Setup Mail Server;
- You will now have the option to check other mail on the left-hand bar of Yahoo! Mail page; Click on the server name to retrieve mail from that account;
- You can edit your account options by clicking on edit next to "Check Other Mail". For example you can opt to have Yahoo delete the e-mails it has retrieved rather than keep them on the server, or to have Yahoo! send the mail to a specific folder.

Unit 10 – Translation Tools on the Web

English “Dominance” of the Internet

English-language pages on the web far outnumber those of any other language. Statistics vary, but the estimates suggest that around three quarters of the pages on the World Wide Web are in English. Yet only 5.4 per cent - little more than 1 in 20 - of the world's population have English as their mother tongue. At present about 35 percent of people who use the Internet have English as their main language. The pre-eminence of the U.S. presence will certainly change rapidly as Internet access increases in other very populated parts of the world.

But the future of English language dominance of the Internet is open to debate. Some see English as the official Net language that will facilitate international exchange. Others see its dominance decline sharply as international Internet access grows and more companies and institutions around the world put their information online and start to conduct e-business in the language of their users.

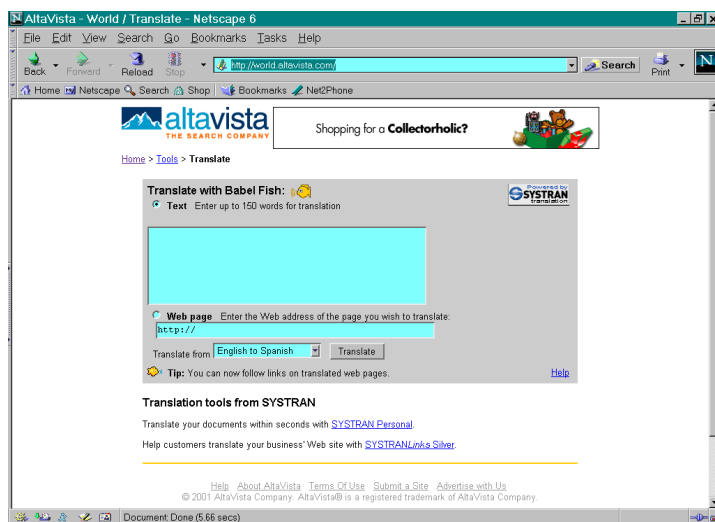


Source: Global Reach
www.global-reach.biz/globstats/

Translation Using AltaVista

Although the material was correct at the time of writing, the Web is changing constantly. The illustrations are a guide. What you will actually see on your computer and the features available may vary from the descriptions and illustrations in the manual.

There are several translation engines on the web. Babel Fish is one that can be found on the AltaVista site.



1. Use your bookmark to go to the AltaVista homepage then click on "*Translate*" found under "Tools" on the side bar. The URL for the translation engine is <http://world.altavista.com/>.
 - You may want to bookmark this site for future use;
 - Babel Fish translates using the Systran engine; the homepage for Systran is <http://www.systransoft.com/>
 - To translate you can enter the text in the large window or enter the URL of the web page you want translated in the space provided;
 - Select the language pair to use (click on the arrow to get a list of language pairs, and move your cursor to highlight the option you need);
 - Then click on "*Translate*";
 - In a short while the translated text or page will appear. There is a limit to the amount of text that can be translated.
2. **Exercise:** Enter a sentence in the translation window and translate it from English to French.
Then translate it back from French to English.
How does it compare with the original?

Translating web pages

One feature found on AltaVista is the capability to translate a web page from the search results.

3. Return to the AltaVista home page, and do a simple search (e.g. toxic chemicals).

UNEP Chemicals - Home Page

... the world a safer place from **toxic chemicals**. We do this by helping governments ... (IRB)
Persistent Organic Pollutants (POPs) Persistent **Toxic** Substances (PTS) Pollutant Release &
Transfer Registers ...

irptc.unep.ch/ • [Related pages](#) • [Translate](#)
[More pages from irptc.unep.ch](#)

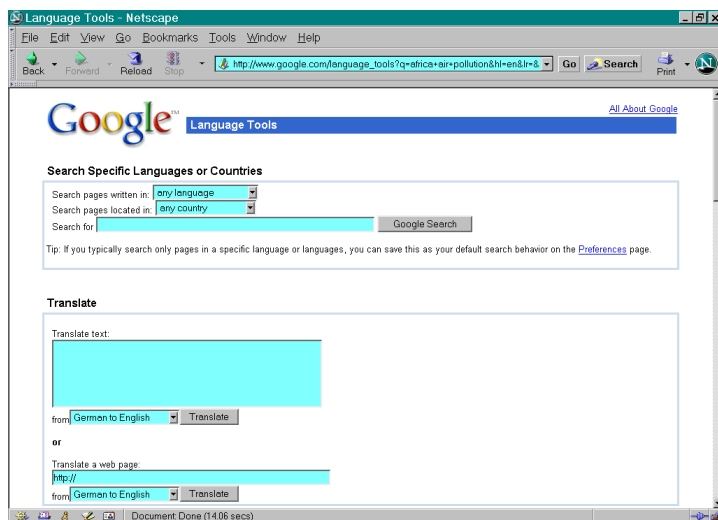
- Look at the search results. Next to the URL you will see Translate. Click on translate to translate the page.
- AltaVista will enter the URL for you in the translation window. Select your language pair and click on Translate.
- The translated page will appear in a window.
- You can view the original page by clicking on the link "*View Original Language*" found just above the translated text. A separate window will open with the original page.

- If you follow a link, the linked page will also be translated.
- Note however, that the translation utility can only translate html pages. If the link is to a document such as a pdf file, it will not be translated. Any graphical text (e.g. buttons) will not be translated.

Translation using Google

As with AltaVista, Google provides a translation tool and an option to translate pages when the search results are in a different language.

4. Go to Google at <http://www.google.com/>;
 - Next to the search window you will see a link to “*Language Tools*”;
 - Click on the link;
 - The translation utility is here. It can be used in the same way as the translation tool in AltaVista.



Exercise

5. Compare the results from the AltaVista and Google translation utility:
 - Enter the URL <http://world.altavista.com/> to translate the Babel Fish home page in Google.
 - Open a new window (Go to the File menu, select New Navigator Window or use the shortcut Ctrl+N). Go to the AltaVista translation page and translate the URL <http://world.altavista.com/> again.
 - Note the limitations of the translation. For example, the word “Tip”: is translated as “extrémité” by AltaVista, and “bout” by Google, even though in this context, “conseil” would be a more accurate translation.

Comparison of Translations

French text of the FAO Decision Guidance Document for Methyl Parathion

D'après les conclusions de l'OMS, le méthylparathion ne risque pas de constituer un danger en cas d'exposition professionnelle, à condition d'observer de bonnes pratiques de travail, des mesures d'hygiène et des précautions de sécurité. Il incombera aux autorités nationales désignées qui évaluent les conditions d'utilisation du méthylparathion dans un pays donné de déterminer si la mise en place des précautions nécessaires peut être garantie dans le pays en question, dans le cadre de l'évaluation des risques posés par l'utilisation des différentes formulations de méthylparathion, faisant l'objet du présent document d'orientation des décisions (PISSC, 1986; OMS, 1993).

Translation by Systran (<http://www.systransoft.com/>)

According to the conclusions of WHO, the méthylparathion is not to constitute a professional danger in the event of exhibition, on the condition of observing good practices of work, measures of hygiene and precautions of safety. It will fall to the designated national authorities which evaluate the conditions of use of the méthylparathion in a country given to determine if the setting up of the precautions necessary be able be guaranteed in the country in question, within the framework of the evaluation of the risks placed by the use of the various formulations of méthylparathion, being the subject of this document of orientation of the decisions (PISSC, 1986; WHO, 1993).

Official English text of the FAO Decision Guidance Document for Methyl Parathion

WHO recommends that for the health and welfare of workers and the general population, the handling and application of methyl parathion should be entrusted only to competently supervised and well-trained applicators, who must follow adequate safety measures and use the chemical according to good application practices. Regularly exposed workers should receive appropriate monitoring and health evaluation. (IPCS 1986, IPCS 1993)

Exercise:

6. Goal: Translate text into another language.

Task: Go to text in English and translate it into French using a search engine:

- Go to a page on the web, for example go back to your previous AltaVista search result (Use the back key);
- Choose a result and go to the linked page;
- Use your mouse to select the first paragraph of text;
- Copy the text (Go to the Edit menu and select Copy or use the shortcut Ctrl+C);
- Open a new navigator window (shortcut Ctrl+N);
- Use your bookmark to return to AltaVista Babel Fish;
- Click into the text window and paste the recently copied text (Go to the Edit menu and select Paste);
- Select the translation pair to be used (e.g. English - French) and click on Translate.

Exercise:

7. **Goal:** Using a translation feature to read articles in another language.

Task: Use a search engine to translate a French article into English:

- Leave the translation window and return to the previous browser window;
- Go to AltaVista (Use your bookmark);
- Type in **pesticide** in the search window, select French as your language, then click on "*Search*";
- Choose a title and follow the link;
- Select the text you want translated and copy it;
- Go to the browser window where you have the translation utility and paste the selected text;
- Choose the language pair (e.g. French to English) and click on "*Translate*".

You can repeat this exercise using Spanish:

- Leave the translation window and return to the previous browser window;
- Go to AltaVista (Use your bookmark);
- Type in **pesticidas** in the search window, select Spanish as your language then click on "*Search*";
- Choose a title and follow the link;
- Select the text you want translated and copy it;
- Go to the browser window where you have the translation utility and paste the selected text;
- Choose the language pair (e.g. Spanish to English) and click on "*Translate*".

Exercise:

8. **Goal:** Translate a Web page into another language.

Task: Enter the URL of a page in another language and translate it into English.

- Go to the translation engine and translate the following links
- <http://www.lebulletin.com/herbicides/infoguide.cfm>
(French)
- <http://www.aeet.org/ecosistemas/portada.htm>
(Spanish)
- Choose the language pair and then click on translate.

Exercise:

9. **Goal:** Appreciate the usefulness and limitations of automated translation

Task: Discuss the usefulness of translation utilities and their potential drawbacks.

Automated translations can help us understand a website that is in a foreign language, but as we have seen, the translations provided are not exact. Care should always be taken when interpreting such texts. If one already has some knowledge of the language in question, translation engines can help us through more difficult sections or words.

Translating a Document in PDF Format

If you have found the pdf document using Google, you may see the link "View as HTML" next to the file format. Follow this link and then click in the Address Window to highlight the full URL. Copy the URL (Ctrl+C) and then go to the translator. Click in the "Translate a web page" window, remove the http:// and paste the URL (Ctrl+V). Select your language pair and click on Translate.

It might still be possible to translate text in a pdf file if that file is not copy protected.

Save the file to disk. Then open it using Acrobat Reader. Select the text select function. Highlight the text and go to the Edit menu. If Copy is highlighted, that

means you can copy the text. You can then copy and paste this text into the translation window of the translation utility. (Copying text in this fashion results in a paragraph break at the end of each line, you may get a more accurate translation if you remove these breaks)

At times you will not be able to copy part of a page, but you can Copy All. Select Copy All. Since the translation engine cannot translate a whole page at a time, you will need to paste it into a word processor, remove the unwanted paragraph marks and then copy a small amount of text as limited by the utility. Paste this text in the window of the translation tool. Tedious, but it works.

Unit 11 – Advanced Search

An efficient search for information on the Internet depends on a good search strategy. We have seen how the simple use of keywords can result in a large number of irrelevant hits. There are several ways in which a search strategy can be refined.

Most search engines use a variation of Boolean operators. These are mathematical expressions that are used to indicate the relationship between the keywords:

- AND – is used to indicate that both words must appear in the document
- OR – is used to indicate that one or the other term can appear in the document
- NOT – is used to exclude the documents that have include this term (sometimes written as AND NOT)
- ADJACENT – is used to indicate that the words must be next to each other
- NEAR – is used to indicate that the words must be near each other, usually in the same sentence or paragraph

Instead of words, sometimes the mathematical symbols + - * are used for the Boolean operator.

Synonyms

An important consideration in designing your search strategy is to consider related terms or synonyms. Use the OR operator to retrieve synonyms.

Wild Characters

One thing to be aware of as well is the difference between American and British spelling. Search engines will only look for the word you request. You can enter both forms as synonyms or in some search engines you can include a dummy or wild

character to indicate the absence or presence of a character – e.g. organi*ation (which will retrieve both organisation and organization). The wild character will differ among search engines, so check the instructions.

Truncation

We have already mentioned the use of word stems to allow the searching different endings for a word, such as plurals or verb forms. This is referred to as truncation. In some search engines, a wild character needs to be added at the end of the stem to indicate that you have truncated the term – e.g. organi?. Search engines use different truncation characters and may have several characters. For example, # will be used to indicate that one character only is truncated, and ? when one or more character can follow the stem. Always check the search engine Help function for details.

Phrase

Many search engines allow you to search for an exact phrase in the document. This is often useful when you are looking for a specific concept or document. A phrase is often surrounded by "quotation marks".

Building a Search Strategy

With these concepts in mind you can start developing your search strategy.

- 1) Start with your research question
- 2) Break your question up into its concepts
- 3) List out words that describe each concept
- 4) Write out your strategy grouping the terms for each concept

Example: Statistics on cancer caused by pesticides in East Africa

In this example there are four key concepts:

Statistics Cancer Pesticides East Africa

For each of these concepts we can think of other words that could be used in a document that could be relevant.

For example, incidence of cancer is a related concept to statistics on cancer, so incidence is a potential synonym for statistics

In the case of cancer, we may be interested in specific cancers such as leukaemia, or non-Hodgkin's lymphoma. We could consider carcinogen as a related word.

Instead of the term pesticide, the document could refer to insecticides, herbicides or fungicides. Possibly a document will refer only to a specific pesticide or class of pesticide (e.g. organochlorine, organophosphate).

In this case, studies that look at cancer among pesticide sprayers, agricultural workers or farmers are likely to be of interest, therefore these terms can be used as synonyms to pesticides.

East Africa is made up of several countries so a document on Kenya or Uganda would be relevant, therefore it may be necessary to search for the specific country name as well as the region.

Grouping our terms we then have:

(statistic? OR incidence OR case)

AND

(cancer OR carcinogen?)

AND

(pesticide? OR insecticide? OR herbicide? OR fungicide? OR farm? OR agricultur?)

AND

("East Africa" OR Kenya OR Uganda OR Tanzania OR Zanzibar)

Note the use of the parentheses. These are important as they indicate the order in which the search engine must apply the operator. As well, it is often necessary to type the Boolean operators in capital letters to distinguish them from words.

Once you have thought through your concepts and terms, you are ready to start your search.

Although you have created an elaborate search, it is best to start with the main concepts first and then narrow your search if necessary. Using too many concepts can easily return no results or slow down your response unnecessarily. If you have thought through your query first it will help you modify your search strategy if you are not successful at first.

In this case we could start with: cancer AND (pesticide? OR agricultur?) AND "East Africa"

TIP: Not all search engines use the same conventions or offer complex Boolean searching. Always check for a HELP function to learn how a specific search engine operates.

Note: If you have too many search terms, it may overwhelm the search engine. Repeat the search using fewer terms.

TIP:

What to do if the query retrieves no results?

- 1) Check the conventions used in your search engine and make sure you have structured your statement properly
- 2) Try to use synonyms (the Boolean OR)
- 3) Try to truncate your terms
- 4) Try to reduce the number of terms in your query
- 5) Try another search engine

What to do if the query provides too many or irrelevant results?

- 1) Make your search more specific by combining more concepts (the Boolean AND) or exclude terms (the Boolean NOT)
- 2) Use different terms that are more specific to your field
- 3) If you have used truncated terms, use complete words
- 4) Try another search engine

Refining Your Search

1. In Unit 7, we saw that Google offers, the option "Search within these Results". This allows you to use additional terms to refine your query. This is equivalent to a Boolean AND function.

In both AltaVista and Google, there are additional ways to make your search more accurate.

- **To search a phrase**, use " " around the terms, e.g. "toxic chemicals". This will force the two words to appear together.
- **To ensure that the term occurs in the record** use the + in front of the word, e.g. +"toxic chemical" +cancer to ensure that both terms are included.
- **To exclude a word** you can use -, e.g. "chemical -pesticide" will exclude sites that refer to pesticides. Care must be taken when using the NOT (-) operator, as it can exclude sites that are relevant because they address both subjects

Tip:

Search engines will provide a help page that explains their query language. Always check this page to make sure that you are entering your terms properly.

Advanced Search

Although the material was correct at the time of writing, the Web is changing constantly. The illustrations are a guide. What you will actually see on your computer and the features available may vary from the descriptions and illustrations in the manual.

2. Many search engines will offer an option for advanced search. This can help improve your search results.

Chemical Information on the Internet – Participant's Manual

January 2003

Go to the AltaVista home page and click on Advanced Search found below the search Window. Open a new window (Ctrl+N) and go to the Google home page and click on advanced search found next to the search window.

The screenshot shows the Netscape browser window titled "Advanced Web Search - Netscape". The address bar displays "http://www.altavista.com/web/adv". The main content area features the AltaVista logo and a section titled "Advanced Web Search" with a "Help" link. Under "Build a query with...", there are four radio button options: "all of these words", "this exact phrase", "any of these words", and "and none of these words", each followed by a text input field. A "FIND" button and a "Basic Search" link are to the right. Under "Search with...", there is a radio button for "this boolean expression" followed by a large text input field, and a "sorted by" option with a dropdown menu. To the right of these fields, text explains: "Use terms such as AND, OR, AND NOT, NEAR" and "Pages with these words will be ranked highest." At the bottom, there are radio buttons for "SEARCH: Worldwide" and "U.S.", and "RESULTS IN: All languages" and "English, Spanish". A "Date:" section includes a "by timeframe:" dropdown set to "Anytime". The status bar at the bottom shows "Document Done (0.44 secs)".

The screenshot shows the Microsoft Internet Explorer browser window titled "Google Advanced Search - Microsoft Internet Explorer provided by Kinko's, Inc.". The address bar displays "http://www.google.com/advanced_search?hl=en". The main content area features the Google logo and a section titled "Advanced Search" with links for "Advanced Search Tips" and "All About Google". Under "Find results", there are four radio button options: "with all of the words", "with the exact phrase", "with at least one of the words", and "without the words", each followed by a text input field. To the right, there is a "10 results" dropdown and a "Google Search" button. Below this, there are several filter sections: "Language" (Return pages written in: any language), "File Format" (Only return results of the file format: any format), "Date" (Return web pages updated in the: anytime), "Occurrences" (Return results where my terms occur: anywhere in the page), and "Domains" (Only return results from the site or domain: e.g. google.com, .org, More info). A "SafeSearch" section has radio buttons for "No filtering" (selected) and "Filter using SafeSearch". At the bottom, there is a "News Search (BETA)" section with a "News" radio button, a text input field, and a "Search" button. Below this, it says "Find news stories from the past week" and "To browse news, see the Overview of Today's Headlines". A "Page-Specific Search" section is also visible at the bottom.

AltaVista	Google	
all of these words	with all of the words	Boolean AND
this exact phrase	with the exact phrase	Phrase
any of these words	with at least one of the words	Boolean OR
and none of these words	without the words	Boolean NOT
Free-form Boolean query	-	Allows you to structure a complex Boolean expression as shown in the example above.

AltaVista has two levels of more advanced search. If you use the "More precision" option from the basic search page, you will get the "Build a query with..." interface. This interface is similar to the Google advanced search option. In addition the query builder, AltaVista allows you to create your own complex Boolean query as described in the section above.

You use the query builder in AltaVista or the Google Advanced search option in this way:

- You enter the search terms in the appropriate boxes.
- You can also limit your search to:
 - a specific language
 - a file type (e.g. html or pdf)
 - to pages updated since a certain date
 - to a certain domain name or site
- The search engine will try and match all conditions specified at the same time (Boolean AND)
- In Google you can specify where in the page the term must occur (e.g. title). This function is only available using the free-form Boolean query in AltaVista.

Special Types of Files

- Most search engines allow you to limit your search to specific file types such as graphics or audio files. As noted on page 36 and 37, use the tables to limit the search to certain parts of the Web or media.

Exercise

3. Find 3 references to the LD₅₀ for atrazine. (Hint: Use the terms "acute toxicity" or LD50). Compare your results using AltaVista and Google.
4. Use AltaVista and Google advanced search features to find information on statistics on cancer caused by pesticides in East Africa. Compare your results.
5. Look for information on another topic of interest.

Unit 12 – Introduction to Major Organisations

As we have noted earlier search engines only retrieve materials from a portion of the web. Often, information is found deep within the website of an organisation that is never found by search engines. One way to find this information efficiently is to search an organisation's website. In Unit 7, "Introduction to Searching" we explored the site of UNEP Chemicals. We also searched for IOMC – the Inter-Organisation Programme for the Sound Management of Chemicals. This site serves as a useful link to activities and resources on information on chemicals and their management from the IOMC participating organisations. Another important source of information is the United

States Environmental Protection Agency. In this session we take time to explore these sites in greater depth. Given that organisations update their sites regularly, changes to the sites may have occurred since this manual was written. If this is the case, you can still browse through the pages of the new site to become familiar with the new structure.

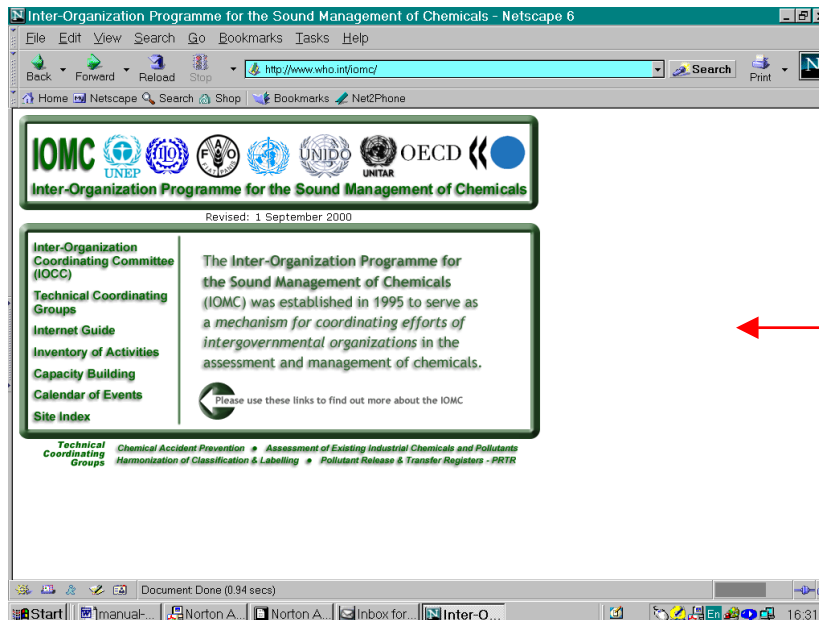
Although the material was correct at the time of writing, the Web is changing constantly. The illustrations are a guide. What you will actually see on your computer and the features available may vary from the descriptions and illustrations in the manual.

IOMC

1. The IOMC main page is found at:

<http://www.who.int/iomc/>.

- Use your bookmark to return to it, or you can search for IOMC using a search engine, or just type in the URL in the browser window.



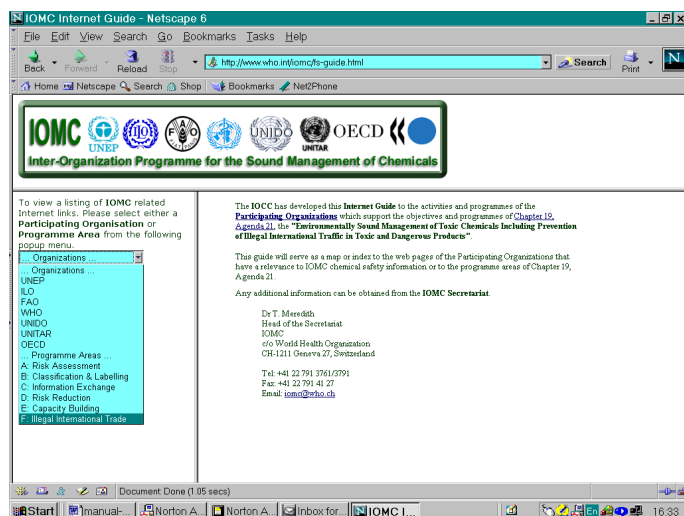
The IOMC main page

- Move your cursor along the left bar. Notice the change in the descriptive text in the window as you move from one link to another.
- Click on Inter-Organisation Coordinating Committee. You will find on this page a short summary of the scope of the chemical related activities of the participating agencies.

The IOMC participating organisations are:

- **United Nations Environment Programme:** <http://www.unep.org/>
- **International Labour Organisation:** <http://www.ilo.org/>
- **Food and Agriculture Organisation:** <http://www.fao.org/>
- **World Health Organisation:** <http://www.who.int/>
- **United Nations Industrial Development Organisation:** <http://www.unido.org/>
- **United Nations Institute for Training and Research:** <http://www.unitar.org/>
- **Organisation for Economic Cooperation and Development:** <http://www.oecd.org/>

- Click on the agency name to move down the page and see the description, for example UNEP.
 - This will provide a summary of UNEP's activities on chemicals. The logo links to the organisation's web site.
 - A summary of the chemical programmes of the IOMC organisations is found in the Annex.
2. Return to the IOMC main page and follow the link to the "*Internet Guide*"
- This guide provides links to the activities and programmes related to the sound management of chemicals among IOMC participating organisations.



From the pull down menu on the left, select either an organisation or an Agenda 21 Chapter 19 programme area to get more details.

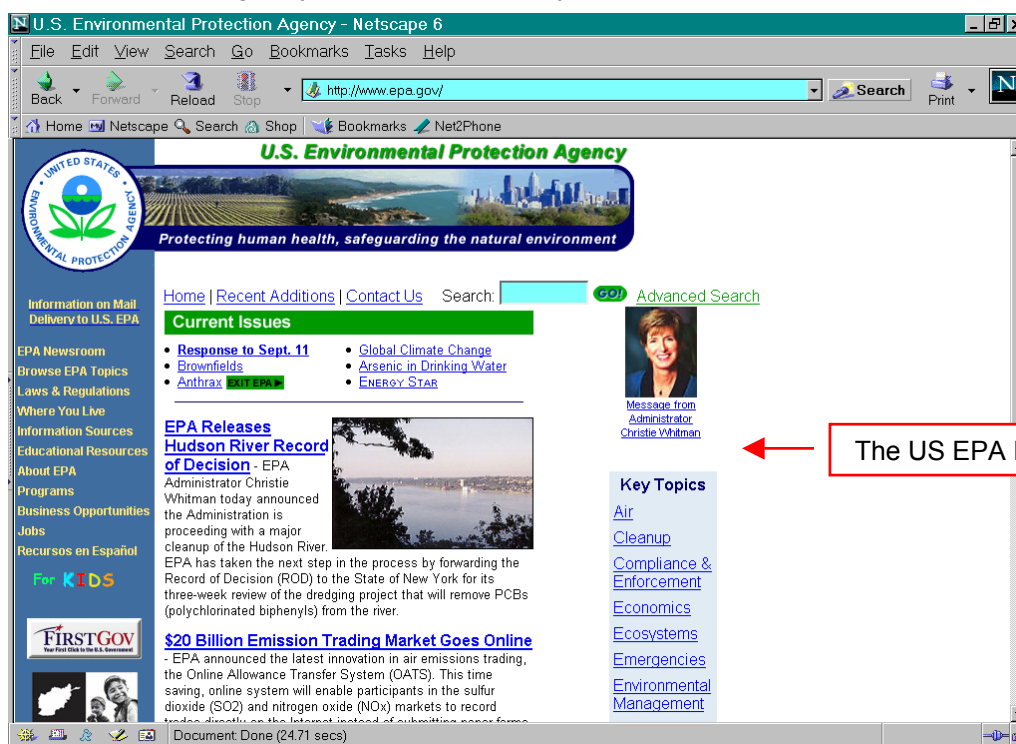
For example, if you select UNEP a list of UNEP activities or programme areas will appear in the right window. You can then follow the links to the areas of interest such as those of UNEP Industry and Environment or UNEP Chemicals.

3. **Exercise:** Go to each organisation or programme area and scan through the list of programmes and activities. Follow links of relevant to your work.

US EPA

4. Go to the US EPA home page at <http://www.epa.gov/>.

Bookmark this page if you have not already done so.



The US EPA Home page

There are two main ways to locate information on this site: by topic or by using the search function.

5. Browse EPA topics
- Click on the link "Browse EPA Topics" on the left hand side bar.
 - Click on an area of interest such as pesticides.
 - Select the Office of Pesticide Programs Home Page
 - You now get a list of topics and activities.
 - Note that you can also search within the Office of Pesticide Programs web pages

Tip:
A shorter list of topics is found under Key Topics

6. **Exercise:**

The wealth of information available on the EPA site can be illustrated by going returning to the Browse EPA Topics page (Use your browser back button or return to the EPA Home Page and repeat step 7).

- Click on International Cooperation,
- Then click on Environmental Information, the subheading under Technical Assistance.
- Click on "International Cleaner Production Cooperative" to see what it contains or click on "List more recommended EPA Environmental Information web pages" to get a listing of related pages and documents.

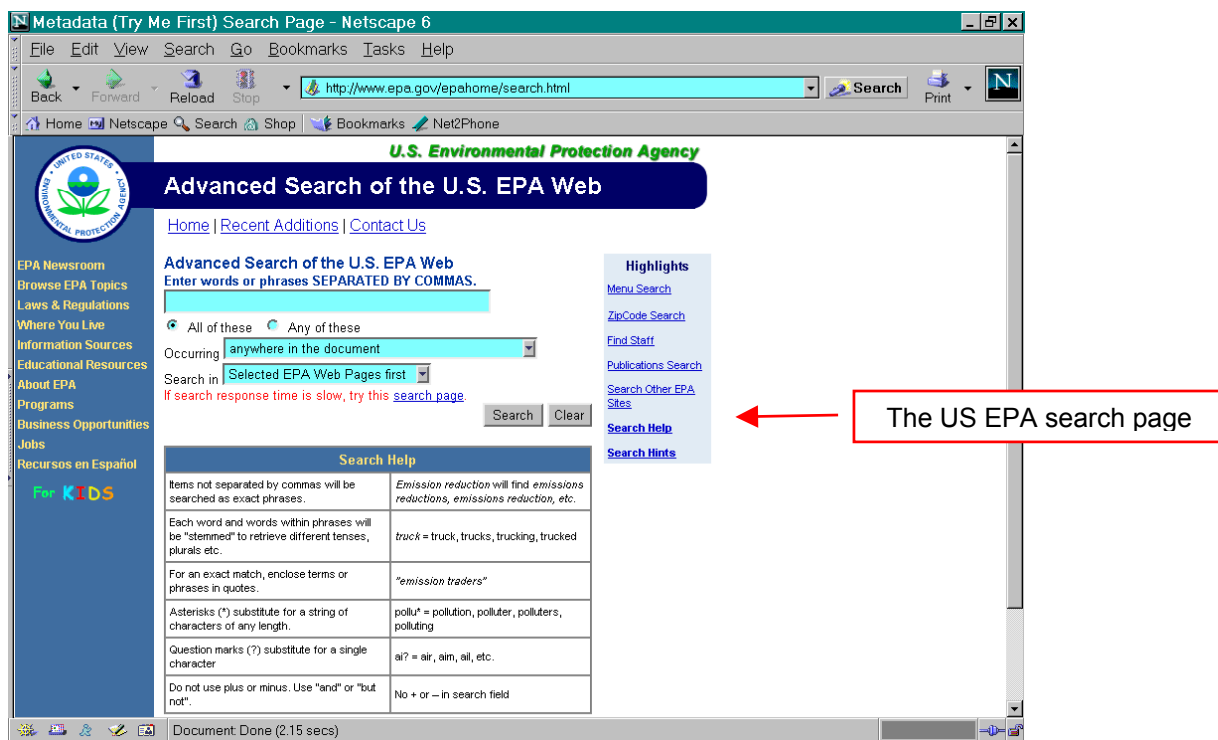
Searching the US EPA Site

You can search the US EPA site by entering keywords in the search window that appears on the main EPA page.

- To ensure better results it is best to be aware of the search syntax, which is described in the table below.

US EPA Search Syntax	
Items not separated by commas will be searched as phrases.	<i>Emission reduction</i> will find <i>emissions reductions, emissions reduction, etc.</i>
Each word and words within phrases will be "stemmed" to retrieve different tenses, plurals etc.	<i>truck</i> = truck, trucks, trucking, trucked
For an exact match, enclose terms or phrases in quotes.	<i>"emission traders"</i>
Asterisks (*) substitute for a string of characters of any length.	pollu* = pollution, polluter, polluters, polluting
Question marks (?) substitute for a single character	ai? = air, aim, ail, etc.
Do not use plus or minus. Use "and" or "but not".	No + or – in search field

- You can also go to the advanced search page.



- Enter your search terms in search window. Note that words will be searched as a phrase unless separated by a comma;
- You can indicate if you want a document to include all (AND) or any (OR) of the terms;
- You can limit your search to the title, URL, keywords, comments, the same paragraph or same sentence;
- You can search through selected web pages first or indicate all EPA web pages without any priority.

Other options include:

- A menu search, where you can search by specific fields.
- A search for contact information for an EPA staff person.
- A search for EPA publications
- Limit a search to specific EPA sites (regions/programmes)
- Obtain more detailed help and search hints to refine your search strategy.

7. **Exercise:**

- Type *arsenic, water* in the search window then click on search;
- Since we used the default setting, selected web pages will appear first;
- This will be followed by recommended web pages, then by all other search results;
- The type of document will be indicated by an icon on the right (most common types are either html web pages or pdf documents);
- If you have too many results, you can limit your search by "searching within these results";
- Page through to the next pages of results by clicking on Next or the page number found at the bottom of the page;
- Or modify the scope of your search by searching selected or all EPA web pages;
- Or start a new search.

8. **Exercise:** Find the US EPA Pesticide Regulation Notice "*Consumer Access Numbers on Pesticide Label*".

Approach 1: Using subject headings:

- Go to the EPA pesticide website (<http://www.epa.gov/pesticides/>).
- Click on *Registration*, then on *Pesticide Registration Notices* at the bottom of the page.
- Use the browser Find function and search for *Consumer Access Numbers*.
- The cursor will land on PR Notice 97-4.

Approach 2: Using the search function:

- Go to the EPA pesticide website (<http://www.epa.gov/pesticides/>).
- Click on *Advanced Search*. Click to check the Pesticide Registration Notices only, since that is the type of document you are looking for, and then type the words: "Consumer Access" between quotation marks, then click *SEARCH*. On the first page of search results, the PR Notice 97-4 should appear.

9. **Exercise:** Find the "*U.S. National Profile on the Management of Chemicals*"